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RDMS # 100510

Loureiro Engineering Associates, Inc.

TRANSMITTAL

TO:	U.S. EPA	DATE	September 26, 2001
	One Congress Street	PROJECT	Willow Brook Pond
	Suite 1100 (HTB)	LOCATION:	East Hartford, CT
	Boston MA, 02203 – 2211	COMM. NO.:	88UT103.001
ATTN:	Juan Perez	PHONE #	

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REMARKS:
Juan – attached is one copy of the progress report for the Willow Brook/Willow Brook Pond PCB remediation project. Please give a call with any questions.

BY: Brian Cutler

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An Employee Owned Company

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Pratt & Whitney
400 Main Street
East Hartford, CT 06108

Pratt & Whitney
A United Technologies Company

September 25, 2001

State of Connecticut
Department of Environmental Protection
Bureau of Water Management
Permitting, Enforcement & Remediation Division
79 Elm Street
Hartford, CT 06106-5127

Pratt & Whitney
CTD990672081
R-9

Attn: Richard C. Hathaway, Jr., L.E.P.

RE: CONSENT ORDER SRD-130
UNITED TECHNOLOGIES CORPORATION
PRATT & WHITNEY DIVISION
QUARTERLY PROGRESS REPORT No. 1, SEPTEMBER 2001

Dear Mr. Hathaway:

In accordance with Paragraph B.8 of the above referenced Consent order, I hereby certify that:

I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information is punishable as a criminal offense under §53-a-157b of the Connecticut General Statues and any other applicable law.

Sincerely,

UNITED TECHNOLOGIES CORPORATION
PRATT & WHITNEY DIVISION

Lorin Sodell
Chief Manufacturing Engineer
Director, Facilities & Services

Attachment

cc: Lauren Levine, UTC
Brian Cutler, LEA
Juan Perez, EPA

September 25, 2001

Loureiro Engineering Associates, Inc.

State of Connecticut
Department of Environmental Protection
Bureau of Water Management
Permitting, Enforcement and Remediation Bureau
79 Elm Street
Hartford, CT 06016-5127

Pratt & Whitney
CT 0990672008I
R-9

Attn: Richard C. Hathaway, Jr., L.E.P.

RE: CONSENT ORDER SRD-130
UNITED TECHNOLOGIES CORPORATION
PRATT & WHITNEY DIVISION
QUARTERLY PROGRESS REPORT No. 1, SEPTEMBER 2001

Dear Mr. Hathaway:

In accordance with Paragraph B.2 of the above referenced Consent order, attached please find the progress report for the period from July 2001 through September 2001. This progress report includes a summary of those actions completed at the site as defined in Paragraph A.2 of SRD-130. In accordance with Paragraph B.8 of the above referenced Consent order, I hereby certify that:

I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information is punishable as a criminal offense under §53-a-157b of the Connecticut General Statues and any other applicable law.

If you should have any questions or comments, please contact me or Lauren Levine of United Technologies Corporation at (860) 728-6520.

Sincerely,

LOUREIRO ENGINEERING ASSOCIATES, INC.

Brian A. Cutler, P.E., L.E.P.
Vice President

Attachment

CONSENT ORDER SRD-130
UNITED TECHNOLOGIES CORPORATION
PRATT & WHITNEY DIVISION
QUARTERLY PROGRESS REPORT No. 1, SEPTEMBER 2001

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Attachments

CONSENT ORDER SRD-130
UNITED TECHNOLOGIES CORPORATION
PRATT & WHITNEY DIVISION
QUARTERLY PROGRESS REPORT No. 1, SEPTEMBER 2001

1. DESCRIPTION OF ACTIVITIES

In accordance with Paragraph B.2 of the above referenced Consent order, the progress report has been prepared to summarize those activities that have been completed during the period from July 2001 through September 2001. As appropriate, this progress report also includes tables, figures, and drawings to support the following text. The description of activities is presented below in the same manner as presented in the Remedial Action Work Plan for the project.

1.1 Pre-construction activities

Prior to the initiation of construction activities, three categories of activities were to be completed. These categories included Project permits and Approvals, Engineering Design, and the preparation of a Health and Safety Plan. Each of the categories of activities were completed during this reporting period. A brief description of the activities completed is presented below.

1.1.1 Project Permits and Approvals

On August 9, 2001, United Technologies Corporation/Pratt & Whitney Division (UTC/P&W) submitted documentation of the receipt of the following permits and approvals to the Commissioner of the Department of Environmental Protection (DEP):

- Army Corps of Engineers Section 404 Permit;
- Department of Environmental Protection Section 401 Water Quality Certification;
- East Hartford Inland Wetlands Commission Permit Approval;
- Proof of East Hartford Planning and Zoning Major Flood Hazard Permit Approval;
- Proof of East Hartford Planning and Zoning Soil Erosion and Sediment Control Certification Approval;
- Department of Environmental Protection approval of Remedial Action Work Plan and Request for Variance, Engineered Control of Polluted Soils.

In addition to the above permits and approvals, two additional registrations for general permits were required to implement the project. The first was for the Discharge of Storm Water Associated with Construction Activity. This general permit allows for the discharge of storm water associated with construction activities that result in the disturbance of more than 5 contiguous site acres. A requirement of the general permit is the preparation of a Storm Water Pollution Control Plan (SWPCP). The SWPCP was prepared and, at the request of Chris Stone of the DEP, submitted to the DEP for review. The only comment received was in regard to the potential for the suspension of sediment during the reintroduction of water following placement of the pond bottom and stream channel caps. The comment was addressed in a July 19, 2001 letter to Chris Stone (Attachment No. 1).

The second registration was the registration for the General Permit for the Discharge of Groundwater Remediation Wastewater to the Sanitary Sewer was submitted to the DEP. This

general permit allowed for the discharge of up to 50,000 gallons of treated groundwater remediation wastewater to the sanitary sewer each day. This registration was submitted to the DEP on May 25, 2001.

The Groundwater Remediation Wastewater General Permit was intended to address the treatment and discharge requirements for all wastewaters generated during implementation of the project, including dewatering wastewater. However, during the installation of well points associated with the dewatering system necessary to implement the excavation of contaminated soil and sediment in the upper portion of Willow Brook Pond, it was determined that it was likely that significantly greater than 50,000 gallons of dewatering wastewater would be generated. As a result, on August 17, 2001, an application for an Emergency/Temporary Authorization to discharge dewatering wastewater to the surface water was submitted to Donald Gonyea of the DEP. The Temporary/Emergency Authorization allowing for the discharge of up to 1,008,000 gallons of dewatering wastewater to Willow Brook was signed by the Commissioner of DEP on September 6, 2001. Copies of the application and Temporary/Emergency Authorization are provided as Attachment No. 2.

1.1.2 Engineering and Design

Prior to implementation of the construction phase of the project, it was necessary to prepare a detailed set of construction drawings to guide the implementation of the project. The project is being performed as a design-build effort. As such, detailed design plans and specifications beyond that necessary to support the permitting efforts and to establish the performance criteria for the remediation project, are not necessary. The drawings and figures contained within the July 2001 Remedial Action Work Plan represented the current status of engineering design for the project. Additional engineering design, other than the anticipated minor field alterations necessitated by changed conditions, is not anticipated,

1.1.3 Health and Safety Plan

A Health and Safety Plan (HASP) was prepared prior to the initiation of construction activities. The HASP details safety organization, procedures, and personal protective equipment that are based on an analysis of potential site-specific hazards. The HASP, meets the requirements of 29 CFR 1910 and 29 CFR 1926 (which includes 29 CFR 1910.120 and 29 CFR 1926.65). The HASP was completed on June 30, 2001, reviewed and signed by field personnel, and is available at the field office located at 24 Willow Street.

1.2 Construction Activities

Construction activities were initiated at the site on July 2, 2001. The following is a summary of the construction activities completed during this reporting period.

1.2.1 Site Preparation

Temporary Fence: The construction activities at the site began on July 2, 2001 with the installation of the temporary fencing along the southern and eastern limits of the project site. The temporary fence installation was completed on July 6, 2001. In addition, during the week of July 2 to July 6, 2001, miscellaneous debris (fencing, shrubs, pallets) was removed from the immediate vicinity of the parking lots to allow for the installation of the by-pass channel.

Permanent Fencing: The construction of the permanent fence along the northern perimeter of the project was initiated on July 31, 2001. The installation of the permanent fence along the northern perimeter was completed on August 8, 2001. At the request of one of the neighboring property owners, arrangements were made to remove a section of existing fencing on their property that they (or a former owner) had erroneously installed at a location off of the property line. The removal of the former fence and the installation of a new fence along the property line was completed on August 6, 2001.

Lowering of Pond Level: The lowering of the water level within Willow Brook Pond was initiated by the opening of the gate on the dam and the removal of flashboards on the northern portion of the dam on July 10, 2001. Prior to lowering the water level in the pond, a series of oil absorbent booms were installed within Willow Brook Pond upstream of the dam, and at three locations within Willow Brook downstream of the dam. The last flashboard was removed from the dam on July 24, 2001.

Clearing and Grubbing: Clearing and grubbing activities were initiated on the south embankment of Willow Brook nearest the Main Street culvert on July 23, 2001. The clearing and grubbing of the southern bank of Willow Brook, the entirety of the upper section of Willow Brook Pond, and the removal of large trees immediately downstream of the dam on Willow Brook Pond was completed on August 1, 2001. Additional clearing and grubbing to complete the project will be performed during the next reporting period.

Decontamination Facilities: The installation of decontamination pads was initiated on July 26, 2001. A total of two decontamination pads were constructed; one in the eastern portion of the project site, and one in the western portion of the project site.

Contaminated Soil Staging Bins: The construction of the staging bins for contaminated soil and sediment were initiated on July 24, 2001. The construction of the staging bins in the eastern portion of the site and western portion of the site was substantially completed on August 29, 2001. The final placement of the liner in the contaminated soil staging bins in the western portion of the site will be completed prior to placing the bins in service during the next reporting period.

1.2.2 Bypass Channel

The installation of the by-pass channel to divert flow from the eastern inlet to the Upper section of Willow Brook Pond to the Main Street culvert was initiated on July 6, 2001 with the milling of the pavement in the parking lot located east of the lower section of Willow Brook Pond. The excavation of the western section of the by-pass channel was initiated on July 10, 2001.

Discolored soil emitting a petroleum odor was noted during the construction of the section of the by-pass channel to accommodate the 54-inch and 24-inch culverts from the Willow Arms Apartment complex. On July 19, 2001, soil borings were advanced in the vicinity of this portion of the by-pass channel in an effort to assess the limits and chemical composition of the identified material. The location of each soil boring is provided on the Site Plan provided as Attachment No. 3. It was determined that the discolored soil extended north of the by-pass channel to the southern embankment of Willow Brook. Samples of the material were submitted to Premier Laboratories and analyzed for the presence of PCBs, the RCRA 8 metals (by the TCLP), and total petroleum hydrocarbons. Copies of the analytical information are presented in Attachment No. 4. A decision as to the ultimate disposition of this material will be made during the next reporting period. The completion of the installation of the 54-inch and 24-inch culverts will also be completed during the next reporting period.

The steel sheeting portion of the by-pass channel within the lower section of Willow Brook Pond was initiated on July 26, 2001. The steel sheeting installation was completed on August 6, 2001.

Though numerous attempts were made to identify the location of the Willow Street Pub septic system prior to initiating the excavation in this area, the Town of East Hartford maintained no records of the installation of the system. During the excavation of the western most portion of the by-pass channel (nearest the main street culverts), on August 9, 2001 the 4-inch clay tile pipe exiting the septic tank from the Willow Street Pub was unearthed and broken. This pipe connects the septic tank to the leaching portion of the septic system serving the establishment. The septic tank is located along the northeastern exterior wall of the Willow Street Pub and the leaching portion of the system apparently exists on the north side of the by-pass channel. The broken line was reported to the Town of East Hartford Health Department. A representative of the East Hartford Health Department was onsite on August 9, 2001 to observe the pipe break and approve the approach to the repair. A permit for the repair was obtained on August 9, 2001. The line was repaired and temporarily supported across the by-pass channel through the use of a steel beam. The repair was discussed with and approved by the Town Sanitarian.

The ultimate configuration of the by-pass channel outlet to Willow Brook at the Main Street culvert was modified in the field as a result of interferences with a utility pole. The modification resulted in the relocation of the outlet approximately 50 feet east of the original location. In addition, the energy dissipater was not extended into the stream channel as originally planned. The rationale was to provide for the ability to perform the stream channel excavation and restoration at a later date. The field change resulted in a dissipater that functions as intended and

protects Willow Brook from erosive forces exerted by water traveling through the by-pass channel. The construction of the energy dissipater at the intersection of Willow Brook was completed on August 27, 2001.

The lining of the by-pass channel and the installation of erosion control fabric on the upper sides of the by-pass channel were initiated on August 23, 2001. The liner and erosion control fabric installation was completed on September 17, 2001. The initiation of flow in the by-pass channel was performed on September 20, 2001. The flow in the by-pass channel was observed during a significant precipitation event that occurred on September 21, 2001. The by-pass channel functioned as designed.

1.2.3 Demolition and Removal of Existing Structures

Process Water Facility: The demolition of the Process Water Facility and the Substation 54 was initiated on July 17, 2001. A spill of approximately 10 ounces of hydraulic oil occurred in the vicinity of the Former Process Water Facility on July 18, 2001. Of the estimated 10 ounces, approximately 2 ounces was released into the lower section of Willow Brook Pond. The remainder of the spill was contained in the bucket of the backhoe or on the rocks along the embankment of the pond. The release resulted from a rupture of a hydraulic hose on the backhoe being used to facilitate the demolition of the Process Water Facility. The release was reported by UTC/P&W to the DEP Oil and Chemical Spills Section and the National Spill Response Center.

Substation 54: It was necessary to assess the presence or absence of asbestos within the substation prior to obtaining a demolition permit. It was determined that asbestos was present and the asbestos was abated on July 25, 2001. Following abatement, the demolition permit was issued by the Town of East Hartford on July 25, 2001. The demolition of the substation structure as initiated on August 1, 2001 and was completed on August 9, 2001. On August 9, 2001, 8, 30-cubic yard roll-off containers of scrap metal generated during the demolition of the structure were sent to Schiavone Recycling in North Haven, Connecticut. On August 9, 2001, 2, 30-cubic yard roll-offs of burnable debris (wood) generated during the demolition of the structure and during the clean up of the parking areas within the limits of the construction site were sent to P&S of Uncasville, Connecticut.

Oil/Water Separator: As detailed in the Remedial Action Work Plan, the data from the three-phases of characterization investigation were are sufficient to delineate the three-dimensional extent of soil impacted by PCBs in the vicinity of the oil/water separator. However, the data were not adequate for the purposes of establishing the lateral limits of the composite cap to be installed in the area of the oil/water separator. As a result, prior to implementing the remediation in this area, soil borings were advanced on July 24 and July 25, 2001 using the Geoprobe®. The intent of the sampling was to delineate the three-dimensional extent of other soils requiring remediation for other constituents pursuant to the RSRs. The location of each of the soil borings is provided on the Site Plan in Attachment No. 3. The analytical data from soil samples collected during the advancement of these soil borings is provided as Attachment No. 5.

The excavation and removal of the oil/water separator was initiated on August 13, 2001. The upper 4-feet of soil was excavated from the oil/water separator area and placed on polyethylene sheeting and sampled for the purposes of disposal characterization. The upper 4 feet of soil was previously characterized to contain less than 50 parts per million (ppm) total polychlorinated biphenyls (PCBs). The analytical data for disposal characterization samples collected during this reporting period are provided as Attachment No. 6. During the period from August 13, 2001 to September 19, 2001, 786 cubic yards of soil containing less than 50 ppm PCBs and 2,727 cubic yards of soil and concrete containing greater than 50 ppm PCBs was excavated and disposed of. The oil/water separator, with the exception of the bottom slab has been removed and disposed of. The removal of the bottom stab and the completion of the remainder of the contaminated soil excavation will be completed during the next reporting period.

1.2.4 Contaminated Soil and Sediment Excavation and Offsite Disposal

Oil/Water Separator: As detailed above, contaminated soil and sediment excavation was initiated on August 13, 2001 in the vicinity of the former oil/water separator. To date, a total of 3,513 cubic yards (5,741 tons) of contaminated soil and concrete has been excavated and removed from the site. It is anticipated that the remainder of the excavation in this area will be completed during the next reporting period.

Upper Pond: As noted in Section 1.1.1, during the installation of well points associated with the dewatering system necessary to implement the excavation of contaminated soil and sediment in the upper portion of Willow Brook Pond, it was determined that it was likely that significantly greater than 50,000 gallons of dewatering wastewater would be generated. In addition, during the installation of the well points, it was determined that a zone of previously unidentified contamination at depths ranging from 4 to 6 feet below the existing pond bottom may be present.

In response to this, a decision was made to extend the by-pass channel around the upper section of Willow Brook Pond to the 108-inch diameter inlet culvert. The extension of the by-pass channel was necessary to ensure that the remediation of the upper section of Willow Brook Pond could be completed in a manner that was not dependent on the weather. The extension of the by-pass channel is contemplated in the Remedial Action Work Plan as well as all other project-specific permits issued by the DEP, Army Corps of Engineers, and the Town of East Hartford. As noted above, the by-pass channel was completed on September 20, 2001.

On September 4, and 5, 2001 soil borings were advanced to depth of up to 10 feet in the upper portion of Willow Brook Pond and samples were submitted for analysis for the presence of PCBs. The location of each of the soil borings is depicted on the Site Plan provided as Attachment No. 3 and the analytical data generated from the soil samples submitted for analysis are provided as Attachment No. 7. Discussion of the analytical data and conclusions drawn as a result of the evaluation of the data are presented in Section 2.0. It is anticipated that the excavation of contaminated soil and sediment from this area of the project will be completed during the next reporting period.

Remainder of Project Areas: It is anticipated that the remainder of the contaminated soil and sediment excavation will be completed during the next reporting period.

1.2.5 Construction Dewatering

Dewatering of nearly all remediation areas will be necessary to allow for the removal of soil and sediment containing PCBs at concentrations greater than 25 ppm. The installation of the well point dewatering system in the upper section of Willow Brook Pond was initiated on August 20, 2001. The installation of the well point system was completed on August 31, 2001. The well point system was run for 15 minutes on August 31, 2001 and for three hours on September 11, 2001 in an effort to obtain an estimate of flow rate and to obtain samples of raw water to assess treatment needs. All groundwater was pumped directly to fractionalization tanks and was not discharged. Samples were obtained and analyzed for PCBs, volatile organic compounds, total suspended solids, total dissolved solids, and total copper, lead and/or zinc. Copies of the analytical data for samples collected are provided in Attachment No. 8.

1.2.6 Disposal Characterization Sampling

At the request of the vendor receiving the material containing less than 50 ppm total PCBs, additional characterization samples are being collected from this waste stream at a rate of one sample per 1,000 tons of generation. On August 21, 2001, a total 18 disposal characterization samples were collected from various locations throughout the project site. The first purpose of the sampling was to provide the additional analytical documentation required by the New York State Department of Environmental Conservation (NYSDEC) for the TSCA PCB remediation waste stream containing less than 50 ppm total PCB concentration. The second purpose was to provide additional analytical characterization in those areas of the site where PCB concentrations were observed to be less than, but very close to 50 ppm. This additional analytical characterization would have been collected in the future during the performance of excavation activities at the site. The locations at which samples were collected are depicted on the Site Plan provided as Attachment No. 3. The analytical data generated from these 18 samples are provided in Attachment No. 6.

1.2.7 Sediment Accumulation in 108-inch Culvert

During the extension of the by-pass channel around the upper section of Willow Brook Pond, it was necessary to remove 10 sections of 108-inch diameter reinforced concrete pipe. During the removal of the pipe sediment was noted at depths of up to two feet. Additional investigation of the pipe, upstream of the pond, identified the presence of sediment at locations that had previously been assessed as being absent of sediment. The presence of sediment was tracked to the point at which it was no longer evident. During the period from September 6, 2001 to September 10, 2001, a total of six sediment samples were collected from locations within the 108-inch diameter culvert and storm drains discharging to the culvert. All sediment samples were analyzed for the presence of PCBs and all results were less than 1 ppm. The locations at

which samples were collected are provided on the Site Plan in Attachment No. 3. The analytical data from the samples are provided in Attachment No. 9.

2. DATA PRESENTATION

In previous sections of this progress report, mention has been made to the collection and analysis of a variety of samples. This section presents a summary of the analytical data received to date. The section is formatted to present the analytical data in the order in which it is provided in the attachments.

Attachment No. 4 Discolored Material Encountered In By-Pass Channel: . On July 19, 2001, a total of three samples were collected from the discolored material encountered during the installation of a section of the diversion channel. The samples were submitted to Premier Laboratories, Inc. and analyzed for the presence of PCBs, RCRA 8 metals (by the TCLP), and total petroleum hydrocarbons (TPH). A summary of the sampling and analytical information is provided as Table 1 in Attachment No. 4 and a summary of the constituents detected is presented as Table 2. The soil encountered does not exhibit the characteristic of a hazardous waste for the constituents analyzed. The material does exhibit elevated concentrations of TPH (19,000 mg/kg maximum detected) and PCBs (8.9 mg/kg maximum detected). A decision regarding the ultimate disposition of the material will be made during the next reporting period.

Attachment No. 5 Soil Borings in Oil/Water Separator Area: During the period from July 24 to July 25, 2001, a total of 8 soil borings were performed in the vicinity of the oil/water separator for the purposes of delineating the extent of the engineered control to be constructed in this area. From these 8 soil borings a total of 24 soil samples were submitted for analysis for the presence of one or more of the following: volatile organic compounds (VOCs), PCBs, and the RCRA 8 metals plus copper, nickel and zinc. The following compounds were detected in one or more of the samples: arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, silver, zinc, Aroclors 1016, 1254, and 1260, acetone, and methylene chloride. A summary of the sampling and analytical information is provided as Table 1 in Attachment No. 5 and a summary of the constituents detected is presented as Table 2.

The analytical data were adequate to assess the areal limits of the engineered control. Final verification sampling will be performed in accordance with the procedures outlined in the Remedial Action Work Plan upon completion of the excavation in the oil/water separator to confirm the achievement of the remediation goal for this area.

Attachment No. 6 Disposal Characterization Samples: To date a total of 18 disposal characterization samples have been collected to satisfy the requirements of the disposal facility receiving waste containing less than 50 ppm total PCBs. These samples have been analyzed for the presence of VOCs (by the TCLP), herbicides (by the TCLP), pesticides (by the TCLP), PCBs, and the RCRA 8 metals (by the TCLP). The following compounds were detected in the TCLP extract from one or more of the samples: barium, cadmium, chromium, copper, lead,

nickel, zinc, methyl-ethyl-ketone (2-butanone), vinyl chloride, tetrachloroethylene, trichloroethylene, chloroform. No pesticides or herbicides were detected. The samples did not exhibit the characteristic of a hazardous waste for the parameters for which it was analyzed. PCBs were detected in each of the 18 samples analyzed at concentrations ranging from 0.990 mg/kg to 100 mg/kg. A summary of the sampling and analytical information is provided as Table 1 in Attachment No. 6 and a summary of the constituents detected is presented as Table 2.

These samples were collected from areas of the site that were previously assessed to contain less that 50 ppm total PCBs. Of the 18 samples collected, 3 contained concentrations of PCBs in excess of 50 ppm. These three samples were collected for the second purpose noted above (i.e. to provide additional characterization data for areas containing less than, but close to 50 ppm total PCBs). As a result, the sediment from these areas of the site will be managed and disposed of in accordance with the procedures outlined in the Remedial Action Work Plan for greater than 50 ppm material (i.e. the material will be disposed of at a Subtitle C, Hazardous Waste Landfill, with a TSCA permit).

Attachment No. 7 Soil Borings Advanced in Upper Willow Brook Pond: As noted, during the installation of dewatering well points in the upper section of Willow Brook Pond, a layer of potentially contaminated material at depths of 4 to 6 feet below the existing pond bottom was noted. As a result, a total of 8 soil borings were advanced within the limits of the upper section of Willow Brook Pond. A total of 22 samples from these 8 soil borings were submitted for laboratory analysis of the presence of PCBs. PCBs were detected in 20 of the 22 samples submitted for analysis at concentrations ranging from 0.140 mg/kg to 100 mg/kg. A summary of the sampling and analytical information is provided as Table 1 in Attachment No. 7 and a summary of the constituents detected is presented as Table 2.

As a result of the sampling described above, the three-dimensional limits of the excavation within the upper section of Willow Brook Pond has been revised to indicate that the entire surface area will be removed to a depth of 6 feet and a small portion in the easternmost section will be excavated to a depth of 8 feet. Confirmatory samples will be collected upon completion of the initial excavation in accordance with the procedures presented in the Remedial Action Work Plan to verify the area has been remediated to a standard of less than 25 ppm PCBs.

Attachment No. 8 Raw Groundwater Samples: A total of 4 raw groundwater samples were collected on September 11, 2001 from the onsite fractionalization tanks to assess treatment needs for the discharge of groundwater at the site. The samples were analyzed for the presence of PCBs, volatile organic compounds, total suspended solids, total dissolved solids, and total copper, lead and/or zinc. A summary of the sampling and analytical information is provided as Table 1 in Attachment No. 8 and a summary of the constituents detected is presented as Table 2.

The analytical data were compared to the effluent limitations in the Emergency/Temporary Authorization to discharge dewatering wastewater to the surface water. Based on the analytical

data for raw water samples, treatment will be necessary to accomplish the removal of zinc from groundwater prior to discharge to the surface water.

Attachment No. 9 Sediment Samples From Drains Discharging to Willow Brook Pond: As noted, sediment was identified in the 108-inch culvert and storm drains discharging to the culvert and eventually Willow Brook Pond. The extent of the sediment was delineated and a total of 7 samples were collected and analyzed for the presence of PCBs. PCBs were detected in each of the sediment samples analyzed at concentrations ranging from 0.220 to 0.750 mg/kg. A summary of the sampling and analytical information is provided as Table 1 in Attachment No. 9 and a summary of the constituents detected is presented as Table 2.

The extent of the sediment was fully delineated and adequately characterized by the sampling performed. As the analytical data confirms that sediment within the pipe contains PCBs at concentrations of less than 1 ppm, it is concluded that the sediment will not pose a threat of recontamination of Willow Brook and Willow Brook Pond following remediation and does not require removal.

3. COMMENTS TO REMEDIAL ACTION WORK PLAN

On August 7, 2001, LEA received comments from EPA on the July 2001 Remedial Action Work Plan. Responses to each of the comments have been prepared and revisions to the Remedial Action Work Plan have been made. Two comments have resulted in the need for further discussion with EPA. These conversations are ongoing and it is anticipated that a revised Remedial Action Work Plan will be submitted to the DEP and EPA by no later than October 12, 2001.

4. PLANNED ACTIVITIES

Planned activities to be performed during the period from October 1, 2001 through December 31, 2001 include all those necessary to complete the excavation and offsite disposal of contaminated soil and sediment within the limits of the site and to construct the various engineered controls within and immediately surrounding Willow Brook and Willow Brook Pond. Provided as Attachment No. 10 is an updated project schedule detailing the overall project status and the sequence of activities during the next reporting period.

CONSENT ORDER SRD-130
UNITED TECHNOLOGIES CORPORATION
PRATT & WHITNEY DIVISION
QUARTERLY PROGRESS REPORT No. 1, SEPTEMBER 2001

Attachment No. 1

July 19, 2001
Letter to Chris Stone

Loureiro Engineering Associates, Inc.

July 19, 2001

State of Connecticut
Department of Environmental Protection
Bureau of Water Management
Permitting, Enforcement & Remediation Division
79 Elm Street
Hartford, CT 06106

Attn.: Mr. Christopher Stone

RE: General Permit for Discharge of Stormwater & Dewatering Wastewater from Construction Activities
Willow Brook and Willow Brook Pond, PCB Remediation Project
East Hartford, Connecticut

Dear Mr. Stone:

I would like to thank you for taking the time to expedite review of our General Permit registration for the above referenced project. Loureiro Engineering Associates, Inc. (LEA) has prepared this letter on behalf of our client, United Technologies Corporation, Pratt & Whitney Division (UTC/P&W), to provide a response to your concern regarding the suspension of fines upon reinitiating flow within Willow Brook Pond.

As presented during our meeting, the flow from Willow Brook will be diverted through a temporary bypass channel to facilitate the necessary remedial activities within Willow Brook and Willow Brook Pond. Upon completion of the remedial excavation, the ponds (upper and lower) will be capped with a 3-foot thick cap (Attachment 1) consisting of two separate geo-synthetic fabrics, an organic layer, granular fill all topped with a 6-inch course of 4-inch stone (armor). This armor will extend throughout the entire bottom of the ponds up to the ordinary water level or existing pond sidewall structures (riprap, sheet piles, etc.).

The armor layer will consist of screened material from a stone crushing operation. The intent of this material is to offer a sound well bound armor layer offering erosion protection for the underlying cap materials. As such, the gradation specification for the selected material will not include provision for any fines. This material typically arrives on-site well washed and relatively dust free. The material will be temporarily stockpiled on-site prior to placement, inspected for the presence of fines and washed with pressurized water if necessary. Consequently, we do not expect significant sedimentation suspension upon reinitiating the flow. Any rinseate generated during the washing activities will be handled in accordance with our site specific SWPPP.

In addition to the above described mitigative measures, we will use the existing dam to retain the discharge within Willow Pond for an adequate timeframe to facilitate settlement of suspended fines. Although Willow pond offers a significant volume of storage, we will not be able to completely detain the flow for an extended period of time due to potential ecological impacts downstream. The dam is equipped with stanchion type flashboards on both sides of the concrete weir structure to facilitate bypass. The flashboards will be selectively installed with the intent of balancing the need for downstream flow with the upstream detention for settlement.

Since clean stone will be used as armor for the cap surface, very little suspended sediment will be generated. The above-described measures will be adequate to address the concern that sediment will be suspended in the water column upon reinitiation of the flow. However, if our initial assessment of the "refilling" activities suggests that more aggressive measures are appropriate, we will be equipped to immediately install a fixed or floating diaper (a.k.a. Florida Diaper) across the upstream side of the dam as a contingency. A typical detail of this installation is provided as Attachment 2.

We are confident that the provisions included herein will adequately address your concerns regarding the suspension of fines upon reinitiating flow within Willow Brook pond. Please feel free to contact me or Lauren Levine of UTC/P&W at (860) 728-6520 with any questions or comments.

Sincerely

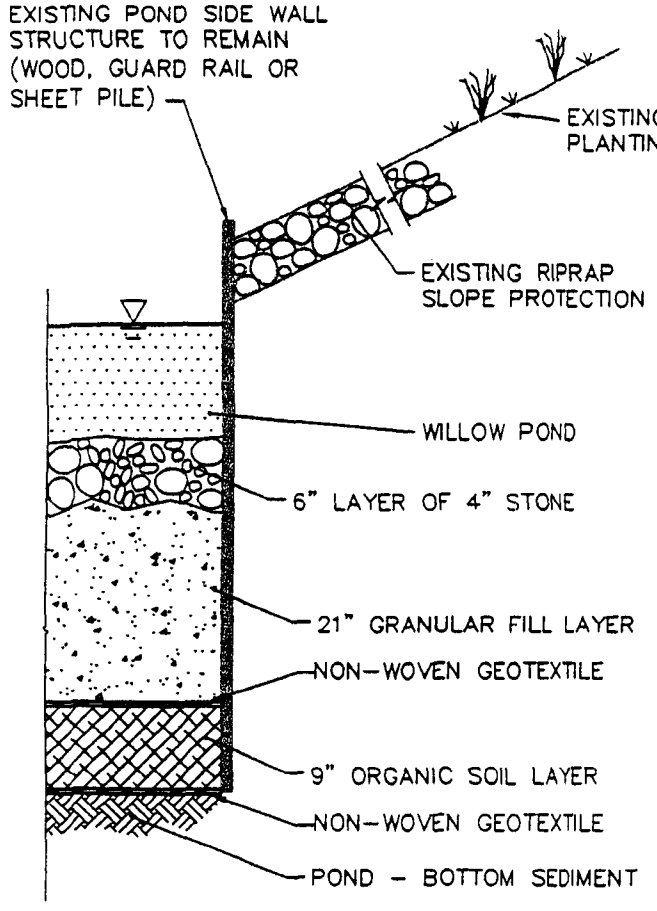
LOUREIRO ENGINEERING ASSOCIATES, INC.

George F. Andrews Jr., P.E.
Senior Project Manager

enclosure

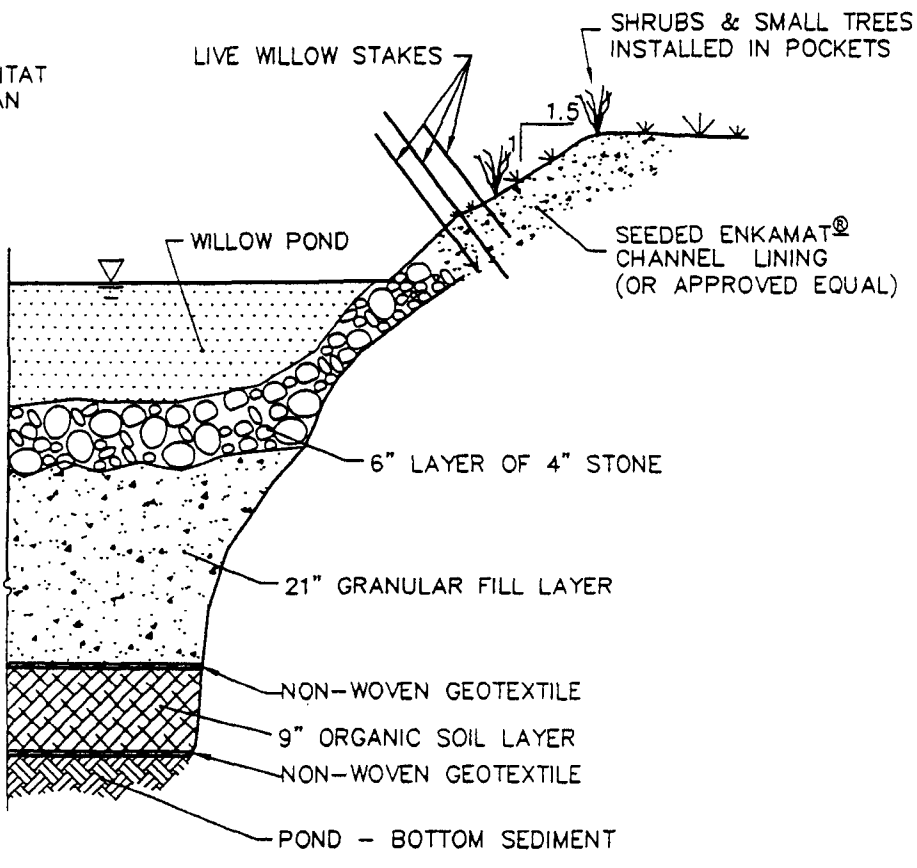
cc: Lauren Levine, UTC
Juan Perez, U.S. EPA
Elsie Patton, DEP
Lori Saliby, DEP
Melissa Toni, DEP
Richard Hathaway, DEP
Cori Rose, ACOE

Attachment 1
Figure 2-6
Detail – Pond Bottom Cap



LOWER POND

NOT TO SCALE



UPPER POND

NOT TO SCALE

REMEDIAL ACTION WORK PLAN

UTC\P & W, Willow Brook & Willow Brook Pond

DETAIL – POND BOTTOM CAP

Comm.No.	FIGURE 2–6	LEA
88UT002		

dwg-DETS.dwg

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Attachment 2
Detail – Florida Diaper

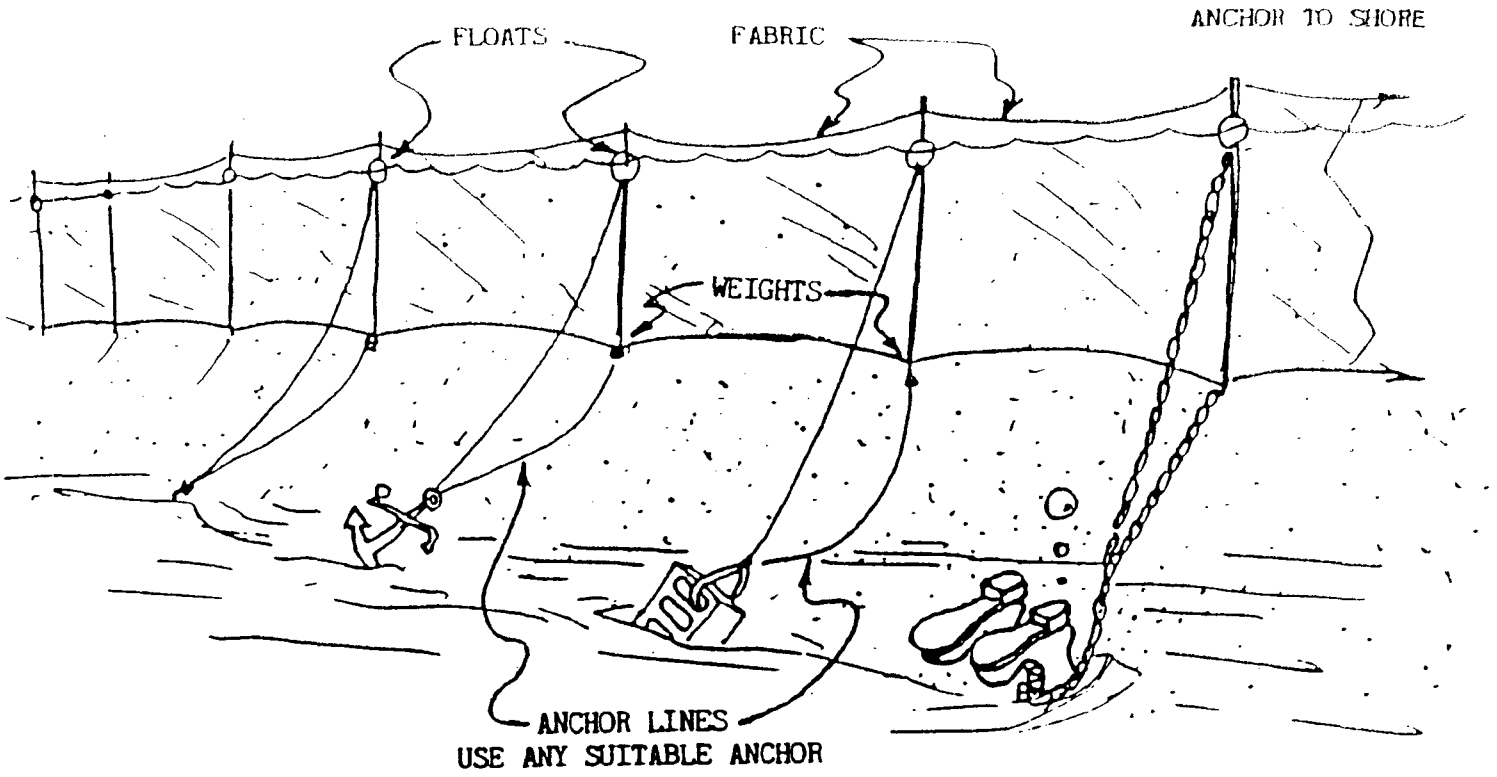
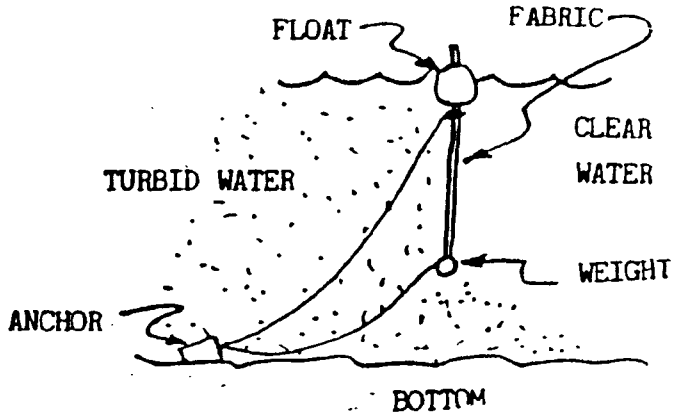


FIGURE 25 - FLOATING SILT SCREEN (Florida Diaper)

Use of floating or fixed diaper confines turbid water to work area.



SECTION EITHER FLOATING OR ANCHORED

FLORIDA DIAPER ON POST

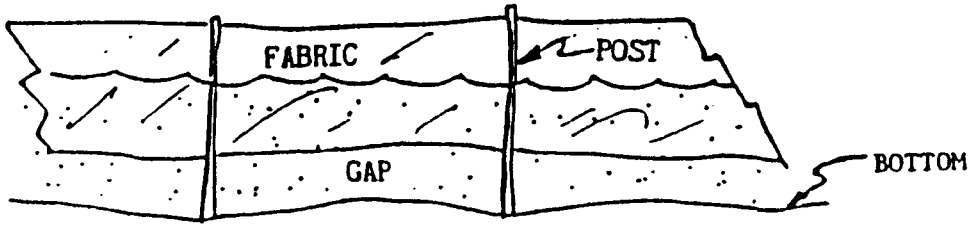


FIGURE 26 - SILT SCREEN ON POST

Details obtained from "On-Site Environmental Mitigation for Construction Activities", Prepared by the Connecticut Department of Transportation, Office of Environmental Planning, January 1986.

CONSENT ORDER SRD-130
UNITED TECHNOLOGIES CORPORATION
PRATT & WHITNEY DIVISION
QUARTERLY PROGRESS REPORT No. 1, SEPTEMBER 2001

Attachment No. 2

Correspondence Related to Temporary/Emergency Authorization for Discharge of Dewatering Wastewater

Loureiro Engineering Associates, Inc.

August 17, 2001

State of Connecticut
Department of Environmental Protection
Bureau of Water Management
79 Elm Street
Hartford, CT 06106-5127

Attn: Donald J. Gonyea

RE: Application for an Emergency or Temporary Discharge Authorization

Dear Mr. Gonyea:

As discussed in conversations with your office on August 15, 2001 and August 16, 2001, the attached *Application for an Emergency or Temporary Discharge Authorization* is being sought for the Willow Brook and Willow Brook Pond PCB Remediation Project currently taking place in East Hartford, CT. This remediation is being conducted under departmental Consent Order SRD-130. *A General Permit for the Discharge of Groundwater Remediation Wastewater to a Sanitary Sewer* has already been obtained for the project, however based on newly evaluated field conditions realized during the excavation phase of the project, the dewatering requirements originally specified for the project were determined to be inaccurate. The new dewatering requirements have been estimated at up to 1,000,000 gallons per day, far in excess of flow limit specified in the general permit.

Since the excavation phase of the project has already begun, obtaining an *Emergency or Temporary Discharge Authorization* in a timely manner has become paramount to meeting the construction schedule set for the project. As specified in the *Approval of the Remedial Action Work Plan; Request for Variance, Engineered Control of Polluted Soils* granted by the State of Connecticut Department of Environmental Protection for the Willow Brook and Willow Pond Remediation (conducted under departmental Consent Order SRD-130) on August 3, 2001, the project schedule provided in the Remedial Action Plan (RAP) anticipates that the Remediation Construction Period will be completed by December 2001. In order to comply with this project schedule the dewatering activities that are required to accommodate the remediation/excavation phase of the project must take place within the next three month period (i.e. August 20, 2001 through November 30, 2001).

If you should have any questions or comments, please contact Boris Tomicic or me at (860) 747-6181.

Sincerely,

LOUREIRO ENGINEERING ASSOCIATES, INC.

Brian A. Cutler, P.E., L.E.P.
Vice President

Attachments

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER MANAGEMENT
PERMITTING, ENFORCEMENT AND REMEDIATION DIVISION
(860) 424-3018

Application for an Emergency or Temporary Discharge Authorization

In accordance with Section 22a-6k of the Connecticut General Statutes, please complete and submit this form with the appropriate fee. Print or type unless otherwise noted.

Note: If the discharge is composed solely of groundwater remediation wastewater and is discharged to a sanitary sewer, the discharger must file for authorization under the General Permit for the Discharge of Groundwater Remediation Wastewater to a Sanitary Sewer.

Application No.
Authorization No.
Facility I.D.

Part I: Fee Information

Please check the category that applies:

$500.00 for Surface Water Discharge √

$250.00 for Sanitary Sewer Discharge

$750.00 for Groundwater Discharge

Note: These fees may be modified depending on the type of activity.

The fee for municipalities is 50% of the above rates. The fee for single family residences shall be waived.

If an emergency exists on site, the application may be processed prior to submittal of fees. Fees shall then be due within 10 days of issuance of the authorization. If submitted fees are deemed inadequate, additional fees shall also be due within 10 days of issuance.

The fee shall be non-refundable and shall be paid by check or money order payable to the Department of Environmental Protection.

Part II: Applicant Information

1. Fill in the name of the applicant/operator.

Applicant/Operator: United Technologies Corporation, Pratt & Whitney Division
Mailing Address: 400 Main Street, Mail Stop 165-35
City/Town: East Hartford State: CT Zip Code: 06108 -
Business Phone: (806) 557-1577 ext. Fax: (860) 755-2342
Contact Person: Lorin Sodell Title: Chief Manufacturing Engineer
Director Facilities & Services

2. List facility or site owner.

Name: Same as Applicant
Mailing Address:
City/Town: State: Zip Code: -
Business Phone: ( ) ext. Fax: ( )
Contact Person: Title:

3. List primary contact for departmental correspondence and inquiries (if other than applicant).

Name: Pratt & Whitney
Mailing Address: 400 Main Street
City/Town: East Hartford State: CT Zip Code: 06108 -
Business Phone: (860) 565-2348 ext. Fax: (860) 565-4913
Contact Person: Dave Geller Title:Environmental Project Engineer

4. List attorney or other representative, if applicable.

Firm Name: Not Applicable
Mailing Address:
City/Town: State: Zip Code: -
Business Phone: ( ) ext. Fax: ( )
Attorney Name: Title:

Part II: Applicant Information (cont.)

5. List any other engineer(s) or consultant(s) employed or retained to assist in preparing the application or in designing, constructing or operating the discharge activity.

Please enter a check mark if additional sheets are attached.

Name: Loureiro Engineering Associates, Inc.

Mailing Address: 100 Northwest Drive

City/Town: Plainville State: CT Zip Code: 06108 -

Business Phone: (860) 747-6181 ext. Fax: (860) 747-8822

Contact Person: Brian Cutler Title: Vice President

Service Provided: Sampling, treatment system design, assistance and certification for Emergency or Temporary Authorization.

Part III: Site Information

1. Name of facility, if applicable:

Street Address or description of location:

City/Town: East Hartford State: CT Zip Code: 06108

2. Is the activity which is the subject of this application located within the coastal boundary as delineated on DEP approved coastal boundary maps? Maps are available at the DEP, 79 Elm Street, Hartford, CT, Store Level.

Yes No √

If yes, DEP may notify you of further requirements.

3. Is the project site located within an area identified as a habitat for endangered, threatened or special concern species as identified on the "State and Federal Listed Species and Natural Communities Map"? Maps are available at the DEP, 79 Elm Street, Hartford, CT, Store Level.

Yes No √ Date of Map: 01/19/01

If yes, DEP may notify you of further requirements.

4. Is the site located within a 1/4 mile radius of a well used for potable supply? Yes No √

5. Groundwater classification of the site: GB

Part IV: Activity Information

1. Maximum daily flow of the discharge: 1,008,000 gpd
   Number of hours per day of the discharge: 24
   Maximum Instantaneous Flow: 700 gpm

2. Provide a brief description of the activity producing the discharge:

Dewatering for excavation of soil and sediment from ponds, stream channel and wetland areas; and gravity dewatering of the excavated materials (if necessary).

3. Provide an estimated duration of the discharge activity. Three Months
   Estimated beginning date: August 20, 2001
   Estimated ending date: November, 30,2001

3. Name of surface waterbody if discharging to a surface water, POTW if discharging to a POTW, or watershed if discharging to groundwater:

Willow Brook, surface water classification B.

4. Type of contamination, if any:

PCB and minor amounts of metals.

5. Volume of product lost, if any:

Quantity unknown due to historic nature of release.

Part V: Supporting Documents

The supporting documents outlined below must be submitted with the completed application form.

Attachment A: A site diagram indicating the location of all structures, drainages, parking areas, monitoring or recovery wells or drinking water wells within a 1/4 mile radius of the site, and all existing or proposed equipment, structures and discharge locations associated with the discharge activity.

Attachment B: An 8 ½" by 11" copy of the relevant portion or a full-sized original of a United States Geological Survey (USGS) quadrangle map, with a scale of 1:24,000, showing the location of the site and the exact location of each discharge. Please include the quadrangle name and number of the USGS map on the copy.

Attachment C: Plans and specifications for the proposed collection and treatment system to be installed on site.

Attachment D: *Emergency or Temporary Authorization Screening Form* (DEP-PERD-AUTH-001A)
Provide sample analyses results indicating pollutants in untreated water to be discharged. Any analyses results submitted must be from samples collected within the past 12 months and must include any known or existing contaminants. Contact Donald Gonyea at (860) 424-3827 if you have any questions. Analyses results *must be* submitted on the screening form provided. Please submit copies of the lab results also. If necessary, analyses conducted for soil characterization may be submitted in lieu of untreated water analyses.

Attachment E: For all discharges to a POTW, an *Approval for Connection to a POTW* (DEP-PERD-AUTH-001B).

Attachment F: A report detailing the nature of the work being conducted. If the discharge is to continue beyond 30 days, this report must detail the nature of the "imminent threat to human health or the environment".

Attachment G: Please submit any additional information pertinent to the activity to be covered by this Authorization. For example, if the discharge includes a discharge of any substance to soil or groundwater, include site hydrogeology, boring logs, direction of groundwater flow, groundwater quality classification, location of monitoring and recovery wells, location of sensitive receptors (potable supply wells, streams, etc.), and detailed information on the substances to be discharged (MSDS sheets are typically not sufficient), etc. If new technology is to be implemented, include summaries of case studies, in addition to technology details.

Part VI: Applicant Certification

The applicant *and* the individual(s) responsible for actually preparing the application must sign this part. An application will be considered incomplete unless all required signatures are provided.

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief.

I certify that this application is on complete and accurate forms as prescribed by the commissioner without alteration of the text.

I understand that a false statement in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute."

Signature of Registrant	Date 8/20/01
Dr. Claudia Coplein Name of Registrant (print or type)	Vice President Environment, Health & Safety Title (if applicable)
Signature of Preparer	Date 8/20/01
Brian A. Cutler, P.E., L.E.P. Name of Preparer (print or type)	Vice President Title (if applicable)

Please enter a check mark if additional signatures are necessary.
If so, please reproduce this sheet and attach signed copies to this sheet.

Please submit this completed form, the applicable fee and all applicable supporting documents to:

AUTHORIZATION COORDINATOR
BUREAU OF WATER MANAGEMENT - PERD
DEPARTMENT OF ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106-5127

Note: Send a copy of this completed form to: the receiving POTW, for POTW discharges; or, the applicable town engineering department, for surface water or groundwater discharges.

Appendix A
Site Diagram

US EPA New England
RCRA Document Management System
Image Target Sheet

RDMS Document ID # 100510

Facility Name: PRATT & WHITNEY MAIN STREET

Facility ID#: CTD990672081

Phase Classification: R-9

Purpose of Target Sheet:

[X] Oversized (in Site File) **[ ] Oversized** (in Map Drawer)

[ ] Page(s) Missing (Please Specify Below)

[ ] Privileged **[ ] Other** (Provide Purpose Below)

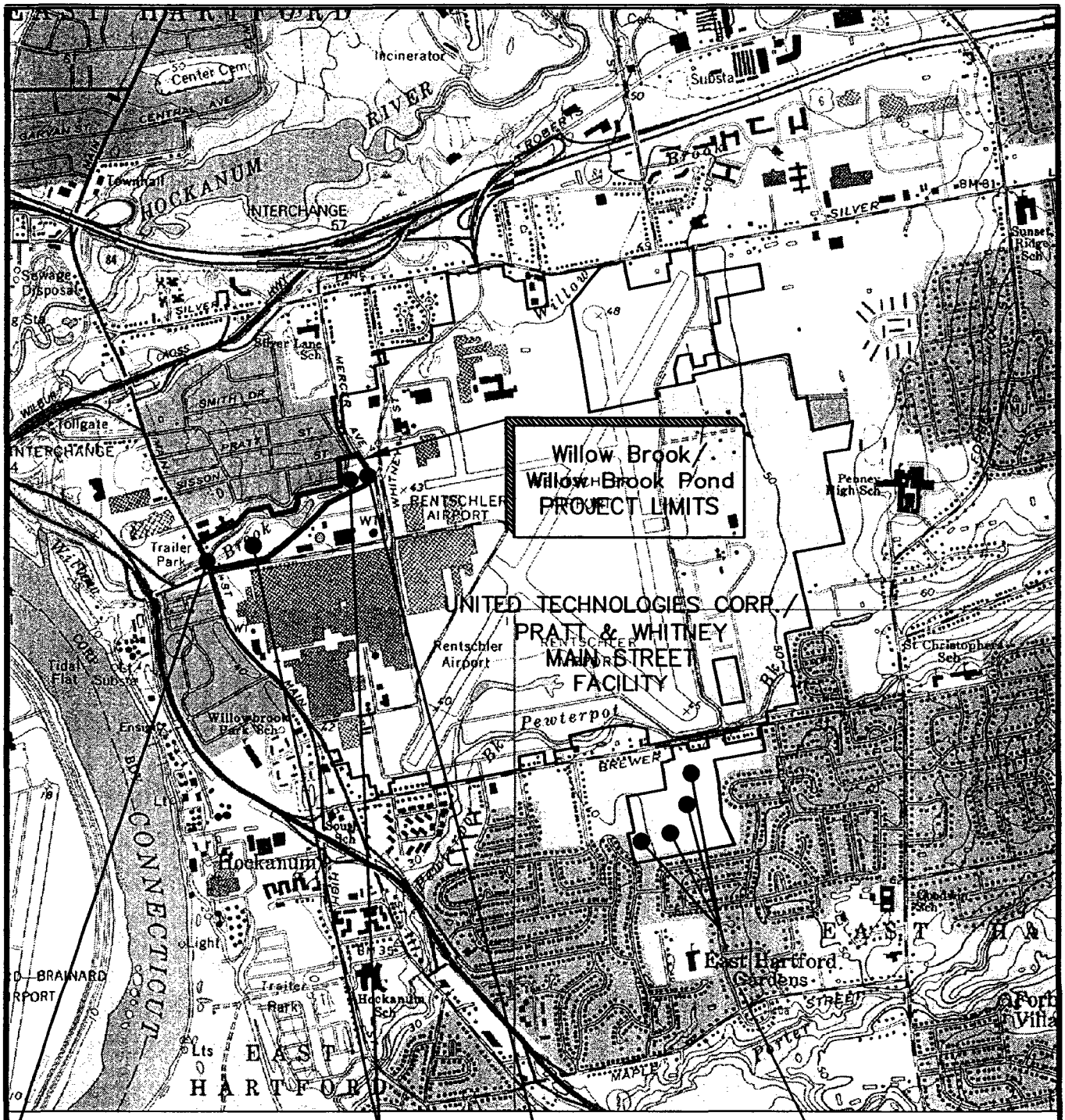
Description of Oversized Material, if applicable:

ATTACHMENT A: WILLOW BROOK/ WILLOW BROOK POND UTC/ P & W MAIN STREET FACILITY EXISTING SITE PLAN

[X] Map **[ ] Photograph** **[ ] Other** (Specify Below)

*** Please Contact the EPA New England RCRA Records Center to View This Document ***

Appendix B
Site Location Map



MAP REFERENCE:
USGS 7.5 MINUTE SERIES QUADRANGLES FOR HARTFORD NORTH, HARTFORD SOUTH, GLASTONBURY, AND MANCHESTER CONN., DATED 1964 & 1963 AND REVISED 1992.

Application for an Emergency or Temporary Discharge Authorization
Discharge of Groundwater Remediation Wastewater to a Sanitary Sewer

WILLOW BROOK/WILLOW BROOK POND
UTC/P&W MAIN STREET FACILITY
SITE LOCATION MAP

Comm.No.	ATTACHMENT B	LEA
88UT002		

USGS-Gen-permit.dwg

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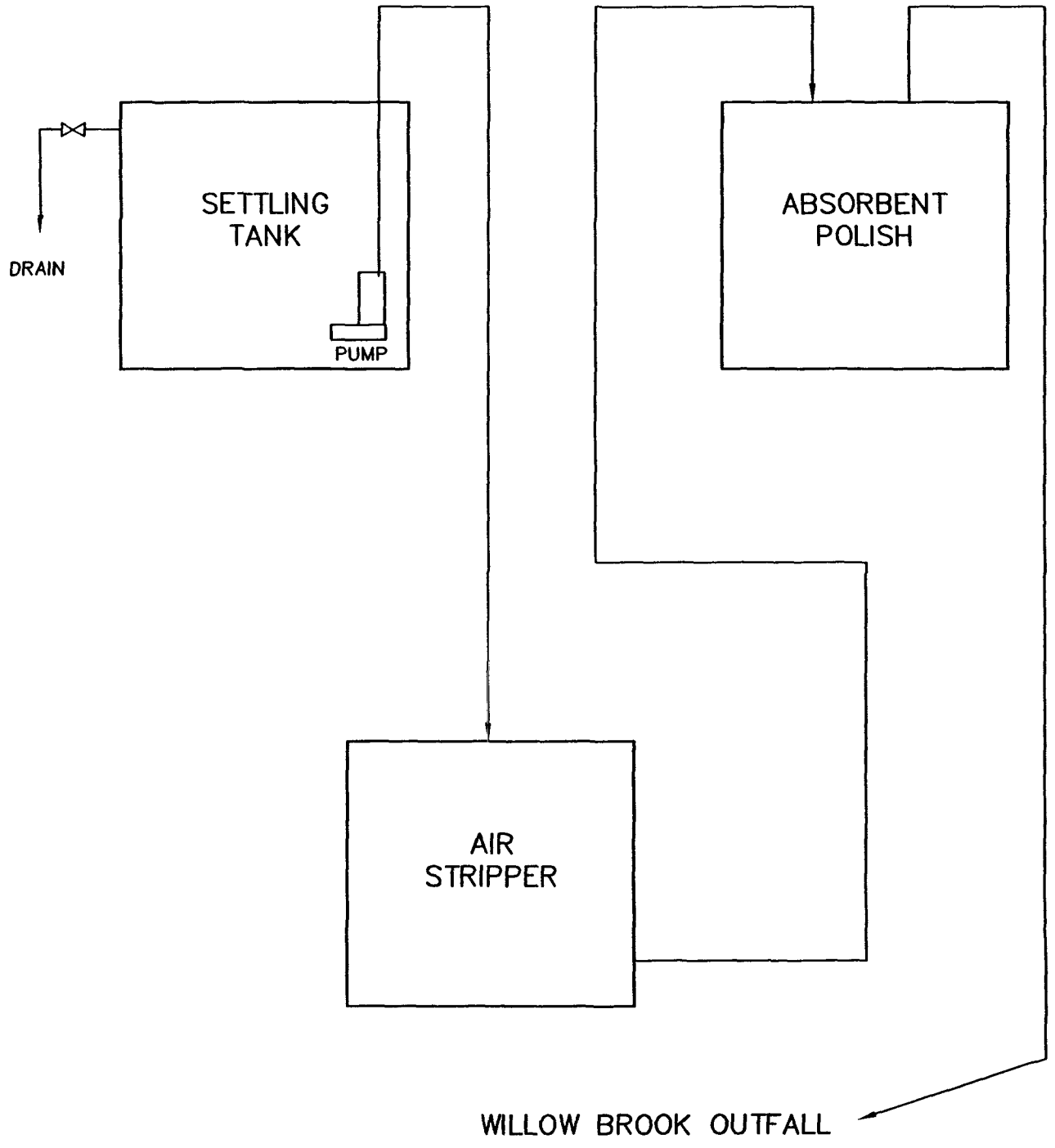
Appendix C
Treatment System Specifications



Application for an Emergency or Temporary Discharge Authorization
Discharge of Groundwater Remediation Wastewater to a Sanitary Sewer

WILLOW BROOK/WILLOW BROOK POND
UTC/P&W MAIN STREET FACILITY
TREATMENT SYSTEM SCHEMATIC

Comm.No.		
88UT002	ATTACHMENT C	LEA

USGS-Gen-permit.dwg

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Appendix D
Emergency or Temporary Authorization Screening Form

Application for an Emergency or Temporary Discharge Authorization
Wastewater to a Surface Water
Screening Form Accompanying Narrative

The attached screening form was prepared by assessing groundwater sampling data compiled over a two-year period form 1998 to 2001. The concentrations presented are the maximum concentrations ever encountered for the subject area during the period defined above. The actual concentrations of the parameters defined in the groundwater derived from dewatering activities will likely be significantly less than those identified in this screening form.

Accumulated stormwater, however, remains uncharacterized due to the impracticality. Since the groundwater within the subject area is impacted by infiltration of rainwater, which obviously contacted the subject contaminated soil, it is assumed that the groundwater generally reflects the concentrations of contamination expected in the stormwater, which collects within the excavations. Sampling of the raw water from the excavation will be obtained and analyzed before discharge is initiated to confirm this representation.

General Permit for the Discharge of Groundwater Remediation Wastewater to a Sanitary Sewer

Screening Form

Site Name: Pratt & Whitney - Willow Brook/Willow Brook Pond

Address: 400 Main Street
East Hartford, CT

(Information supplied by DEP)
Application No. _____
General Permit No. CGR001013
Facility I.D. 043-061

"I certify that I have personally examined and am familiar with the information submitted in this document, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this information may be punishable as a criminal offense, in accordance with Section 22a-6 of the General Statutes, pursuant to Section 53a-157 of the General Statutes, and in accordance with any other applicable statute."

Signature - Title
Brian A. Cutler, P.E., Vice President

6/28/01
Date

Monitoring results shall be recorded below and on the following pages as required in Sections 4 and 6 of this general permit. Parameters not required shall be marked "NA".

Date Sampled: 1998-2001 DSN: _____

Parameter	Result	Limit
Daily Flow		
VOCs as detected by EPA Method 601	4.70 mg/l	1.0 mg/l
Total VOCs (EPA Method 601 & 602)	4.7 mg/l	5.0 mg/l
Oil & Grease - Hydrocarbon Fraction TPH	<3.3 mg/l	100 mg/l
MTBE	<0.076 mg/l	1.0 mg/l
Total Lead	<0.005 mg/l	0.1 mg/l
Arsenic	<0.017 mg/l	0.1 mg/l
Barium	<0.219 mg/l	5.0 mg/l
Beryllium	N/A	2.0 mg/l
Boron	N/A	5.0 mg/l
Cadmium	<0.014 mg/l	0.1 mg/l
Chromium (total)	<0.145 mg/l	1.0 mg/l
Chromium (hexavalent)	<0.024 mg/l	0.1 mg/l
Cobalt	N/A	2.0 mg/l
Copper	<0.314 mg/l	1.0 mg/l
Magnesium	N/A	50 mg/l
Mercury	<0.001 mg/l	0.005 mg/l
Nickel	<1.430 mg/l	1.0 mg/l
Selenium	ND	1.0 mg/l
Silver	<0.153 mg/l	0.1 mg/l
Thallium	N/A	1.0 mg/l
Tin	N/A	2.0 mg/l

Parameter	Result	Limit
Vanadium	N/A	1.0 mg/l
Zinc	<0.035mg/l	1.0 mg/l
Total Cyanide	<0.071mg/l	0.6 mg/l
Amenable Cyanide	N/A	0.1 mg/l
Phenols (EPA Method 625)	ND	1.0 mg/l
Pthalate Esters (EPA Method 606)	N/A	2.0 mg/l
Polynuclear Aromatic Hydrocarbons (PAHs) (EPA Method)	N/A	0.5 mg/l
Base Neutral/Acid Extractables (BNAs) (EPA Method 625, Excluding PAHs & Phenols)	N/A	1.0 mg/l
Pesticides (EPA Method 608)		
Aldrin	N/A	1.5 ug/l
alpha-BHC	N/A	1.0 ug/l
beta-BHC	N/A	1.0 ug/l
delta-BHC	N/A	1.0 ug/l
gamma-BHC (Lindane)	N/A	2.0 ug/l
Chlordane (technical)	N/A	20 ug/l
4,4' - DDD, plus 4,4' - DDE, plus 4,4' - DDT Combined	N/A	0.2 ug/l
Dieldrin	N/A	10 ug/l
Endosulfan I	N/A	2.0 ug/l
Endosulfan II	N/A	2.0 ug/l
Endosulfan Sulfate	N/A	2.0 ug/l
Endrin	N/A	1.0 ug/l
Endrin aldehyde	N/A	1.0 ug/l
Heptachlor	N/A	0.6 ug/l
Heptachlor epoxide	N/A	0.4 ug/l
Methoxychlor	N/A	360 ug/l
Toxaphene	N/A	10 ug/l
Chlorinated Herbicides (EPA Method 615)		
2,4 D plus 2,4 DB	N/A	700 ug/l
2,4,5 T	N/A	10 ug/l
2,4,5 TP (Silvex)	N/A	10 ug/l
Dicamba	N/A	10 ug/l

PCBs (EPA Method 608) — ***Sum of all detected PCBs shall not exceed 1.0 ug/l.***

Parameter	Result	Parameter	Result
PCB - 1016	<1.0ug/l	*Other PCBs if present:*	
PCB - 1221	<1.0ug/l		
PCB - 1232	<1.0ug/l		
PCB - 1242	<1.0ug/l		
PCB - 1248	<3.9ug/l		
PCB - 1254	<4.6ug/l		
PCB - 1260	<1.0ug/l	Total PCBs:	<4.6ug/l

Submit to: DMR SECTION
WATER MANAGEMENT BUREAU/PERD
DEPARTMENT OF ENVIRONMENTAL PROTECTION
79 ELM STREET, HARTFORD, CT 06106-5127

Summarize corrective actions on additional sheets. Results to be maintained on site, and be submitted as required by Section 6 (e) (1) and (2) of this general permit.

Appendix F
Description of Work to be Conducted

Application for an Emergency or Temporary Discharge Authorization
Report Detailing Nature of Work to be Conducted

A General Permit for the Discharge of Groundwater Remediation Wastewater to a Sanitary Sewer has already been obtained for the project, however based on newly evaluated field conditions realized during the excavation phase of the project, the dewatering requirements originally specified for the project were determined to be inaccurate. The new dewatering requirements have been estimated at approximately 1,000,000 gallons per day, far in excess of flow limit specified in the general permit.

Since the excavation phase of the project has already begun, obtaining an *Emergency or Temporary Discharge Authorization* in a timely manner has become paramount to meeting the construction schedule set for the project. As specified in the *Approval of the Remedial Action Work Plan; Request for Variance, Engineered Control of Polluted Soils* granted by the State of Connecticut Department of Environmental Protection for the Willow Brook and Willow Pond Remediation (conducted under departmental Consent Order SRD-130) on August 3, 2001, the project schedule provided in the Remedial Action Plan (RAP) anticipates that the Remediation Construction Period will be completed by December 2001. In order to comply with this project schedule the dewatering activities that are required to accommodate the remediation/excavation phase of the project must take place within the next three month period (i.e. August 20, 2001 through November 30, 2001).

Appendix G
Additional Information

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

EMERGENCY AUTHORIZATION

I. Pursuant to Connecticut General Statutes (C.G.S.) 22a-6k, an Emergency Authorization is hereby issued to:

United Technologies Corporation, Pratt & Whitney Division
400 Main Street - Mail Stop 165-35
East Hartford, CT 06108

to initiate, create, originate or maintain a discharge to the waters of the state at:

Willow Brook via Existing and Project Specific Conveyances at:
United Technologies Corporation, Pratt & Whitney Division
400 Main Street
East Hartford, CT 06108

II. This Emergency Authorization specifically allows the discharger to discharge Willow Pond dewatering, excavation dewatering, and gravity sediment dewatering wastewater contaminated with PCBs, volatile organic compounds and metals generated as a result of a DEP ordered Removal Action (SRD-130).

III. This Emergency Authorization shall become effective on the date it is issued, and shall expire: 1) December 30, 2001 unless renewed by the Department of Environmental Protection; 2) when compliance with Pratt & Whitney's registration under the General Permit for the Discharge of Groundwater Remediation Wastewater to a Sanitary Sewer (reference GGR001013 received 5/25/01) can be maintained; 3) upon issuance of an individual permit pursuant to C.G.S. 22a-430 as amended; 4) immediately upon notification of a tentative determination to deny a permit; or 5) when the discharge ceases; **whichever is sooner**.

IV. The fee of $500.00 has been submitted for issuance of this Authorization.

V. This Authorization has been issued based on the following submittals:

A. Application number 2001-08EA received August 20, 2001.

B. General Permit Registration GGR001013 received May 25, 2001.

VI. A. **DEFINITIONS**

The definitions of terms used in this Authorization shall be the same as the definitions contained in C.G.S. section 22a-423, and section 22a-430-3(a) of the Regulations of Connecticut State Agencies.

Any person who, or municipality which initiates, creates, originates, or maintains a discharge for which an authorization is issued must comply with that authorization. If the source or activity generating the discharge for which an authorization is issued is owned

(Printed on Recycled Paper)
79 Elm Street • Hartford, CT 06106-5127
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1901 2001

by one person or municipality but is leased or in some other way the legal responsibility of another person or municipality (the discharger), the discharger is responsible for compliance with any authorization issued by the Commissioner.

B. **SPECIAL CONDITIONS**

1) The following discharge limits shall not be exceeded at any time:

(a)

Pollutant	Limits
Total Daily Flow	1,008,000 gallons per day
Maximum Instantaneous Flow	700 gallons per minute
Total Volatile Organics (EPA methods 601 & 602 plus xylenes or EPA method 624)	50.0 ug/l
Total PCBs (EPA Method 608)	0.5 ug/l
Total Copper	0.1 mg/l
Total Lead	0.01 mg/l
Total Zinc	0.1 mg/l

(b) The pH of the discharge shall not be less than 5.0 or greater than 8.5 standard units at any time.

(c) The discharge shall not contain a visible oil sheen, and shall not cause the appearance of a visible oil or the appearance of visible discoloration, foaming, or floating solids sheen in the receiving water.

2) AQUATIC TOXICITY: The following protocol for monitoring discharge toxicity shall be followed:

(a) Monitoring for aquatic toxicity shall be conducted within 7 days of commencement of discharge under this Authorization and monthly thereafter for the duration of this Authorization.

(b) Effluent samples shall be collected, handled and tested following the protocol for static non-renewal acute toxicity testing in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (EPA 600/4-90/027F), except as specified by RCSA 22a-430-3(j)(7)(A)(I).

(c) Neonatal Daphnia pulex (less than 24 hours old) and juvenile Pimephales

promelas (1 to 14 days old, with no greater than a 24 hour range in age) shall be used as test organisms.

(d) Test duration shall be 48 hours for both D. pulex and P. promelas.

(e) Results shall be submitted within 45 days of sampling to:
Donald Gonyea, Environmental Analyst
Bureau of Water Management - PERD
Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

3) The following conditions shall be met:

(a) The discharge shall not contain pollutants in excess of the levels indicated in part 1). The treatment system(s) shall be installed and maintained as necessary to ensure that all limitations are met.

(b) Erosion and sediment controls shall be utilized when necessary. These controls must comply with the standards set forth in the "Connecticut Guidelines for Soil Erosion and Sediment Control" as amended, available from the Connecticut Council on Soil and Water Conservation.

(c) Stabilization practices shall be implemented to ensure that existing vegetation is preserved where attainable and that disturbed areas are stabilized. Stabilization practices may include; temporary seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other vegetative and non-structural measures as may be identified by the guidelines. Where construction activities have permanently ceased, or have been suspended for more than 30 days, or when final grades are reached at any portion of the site, stabilization practices shall be implemented within 7 days.

(d) Structural practices must be implemented to divert flows away from exposed soils, and otherwise limit the discharge of pollutants from the site. Such practices may include but are not limited to; silt fences, earthen dikes, drainage swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforces soil retaining systems, gabions, and temporary or permanent sediment basins. Unless otherwise specifically approved in writing, structural measures shall be installed on upland soils.

(e) Best management practices shall be implemented to ensure that no litter, debris, building materials or similar materials are discharged to the waters of the state.

(f) Off-site tracking of sediments and dust generation shall be minimized.

(g) For consistency with Federal Resource Conservation and Recovery Act: Solid waste, including but not limited to contaminated soils or sludges, may be generated as a result of the remediation activity allowed by this Authorization. All waste generated must be disposed of in accordance with applicable federal, state and local law. Some or all of these wastes may be hazardous waste identified in accordance with Section 3001 of the Federal Resource Conservation and Recovery Act of 1976 (42 USC 6901 et seq.) or other wastes of special concern requiring Department approval prior to disposal. It is the responsibility of the authorized person or municipality to ensure that all wastes generated are properly identified and that all necessary Department approvals are secured prior to disposal of the wastes. For further information regarding solid waste management, please contact the Waste Engineering and Enforcement Division of the Department of Environmental Protection at (860) 424-3023.

4) Monitoring and treatment shall be as follows:

(a) Unless otherwise specified in this Authorization, all samples collected to verify compliance with the limits in this Authorization shall be grab samples. All wastewater samples shall be composed solely of the discharge authorized by this Authorization prior to combination with wastewaters of any other type, or with receiving waters. All samples shall be representative of the discharge during standard operating conditions.

(b) At the initiation of a discharge, restart after a violation of authorization limits, or initiation of an new or modified activity generating a discharge under this Authorization, the discharge shall be sampled for the parameters in section VI.B.1) of this Authorization. After such initiation monitoring shall be conducted weekly at a minimum.
In addition, monitoring shall be conducted as necessary to evaluate treatment system efficiency and compliance with Authorization limits.

(c) All sample analyses which are required by this Authorization and the reporting of such analyses shall be conducted by a laboratory certified by the Connecticut Department of Public Health. Analyses shall be performed using methods approved in accordance with 40 CFR 136, which are capable of achieving limits of detection below the level established as an effluent limitation in this Authorization.

(d) Treatment system specifications shall be submitted to the Bureau of Water Management 24 hours prior to installation, or modification unless modification is necessary to insure compliance with Authorization limits. If such modifications are implemented to insure compliance, specifications shall be submitted within 24 hours of implementation. Submittal shall be made to the address in section VI.B.5)(b) of this Authorization or via fax at (860) 424-4057.

(e) For sites with a maximum daily flow of greater than 5000 gallons per day, a flow meter capable of recording instantaneous and total daily flow shall be used continuously during all periods of discharge.

5) REPORTING REQUIREMENTS:

(a) Unless otherwise stated in this Authorization, within two weeks of sampling, monitoring reports shall be entered on the attached form (or copy of it) and submitted to:

Attention: DMR Processing
Bureau of Water Management - PERD
79 Elm Street
Hartford, CT 06106-5027

(b) If a violation of any of the discharge limits specified in this Authorization occurs, **the Bureau of Water Management must be contacted immediately**, and written notification must be submitted to the DEP within 24 hours at the following address:

Authorization Coordinator
Bureau of Water Management
79 Elm Street
Hartford, CT 06106-5127.

Immediate notification shall be made to either Donald Gonyea at (860) 424-3827, Richard Hathaway at (860) 424-3780, or Jan Czeczotka at (860) 424-3784.

(c) The discharger shall notify the DEP in writing of the date of final discontinuance of the discharge.

6) This Authorization shall be non-transferrable.

7) The discharger shall comply with the following Regulations of Connecticut State Agencies, which are hereby incorporated into this Authorization as if fully set herein:

Section 22a-430-3
Subsection (b) General - subparagraph (1)(D) and subdivisions (2), (3), (4) and (5)
Subsection (c) Inspection and entry
Subsection (d) Effect of a Permit - subdivisions (1) and (4)
Subsection (e) Duty to Comply
Subsection (f) Proper Operation and Maintenance
Subsection (g) Sludge Disposal
Subsection (h) Duty to Mitigate

Subsection (i) Facility Modifications, Notification - subdivisions (1) and (4)
Subsection (j) Monitoring Records and Reporting Requirements - subdivisions (1), (6), (7), (8), (9), and (11) (except subparagraphs (9)(A)(2), and (9)(C))
Subsection (k) Bypass
Subsection (m) Effluent Limitations Violations
Subsection (n) Enforcement
Subsection (o) Resource Conservation
Subsection (p) Spill Prevention and Control
Subsection (q) Instrumentation, Alarms, Flow Recorders
Subsection (r) Equalization

Section 22a-430-4
Subsection (t) Prohibitions
Subsection (p) Revocation, Denial, Modification, Appendices

8) The following additional terms and conditions shall be complied with:

1. This Authorization is for the discharge of (a) pollutants in quantities and concentrations as specified in this Authorization; and (b) any substances resulting from the processes or activities described in this Authorization in concentrations and quantities which the Commissioner determines cannot reasonably be expected to cause pollution and will not adversely affect the operation of a POTW. The Commissioner may seek an injunction or issue an order to prevent or abate pollution, and may seek criminal penalties against a person who willfully or with criminal negligence causes or threatens pollution.

2. Discharge of any substance which is not from the processes or activities described in this Authorization shall be considered a violation of this Authorization unless it is authorized by an individual permit issued under Section 22a-430 of the General Statutes or a general permit issued under section 22a-430b of the General Statutes.

9) Within fifteen days after the date the discharger becomes aware of a change in any information submitted to the Commissioner under any registration of this Authorization, or that any such information was inaccurate or misleading or that any relevant information was omitted, the discharger shall submit the correct or omitted information in writing to the Commissioner.

10) Nothing in this Authorization shall relieve the discharger of other obligations under applicable federal, state and local law.

11) Any document, including but not limited to any notice, which is required to be submitted to the Commissioner under this Authorization by the discharger shall be signed by the discharger and by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as

follows: "I have personally examined and am familiar with the information submitted in this document and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statement made in this document or its attachments may be punishable as a criminal offense."

12) Any false statement in any information submitted pursuant to this Authorization may be punishable as a criminal offense under:

Section 22a-438 of the General Statutes or, in accordance with Section 22a-6, under Section 53a-157 of the General Statutes.

13) The Commissioner reserves the right to make appropriate revisions to this Emergency Authorization in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which may be necessary to adequately protect human health and the environment.

14) The Commissioner may order summary suspension of this Authorization in accordance with Section 4-182 of the Connecticut General Statutes.

Entered as an Emergency Authorization of the Commissioner of Environmental Protection.

September 6, 2007
Date

Arthur J. Rocque, Jr.
Commissioner

Facility ID. 043-061
Application No. 2001-08EA
Authorization No .EA0100183

AUTHORIZATION

INITIAL SCREENING OR SUBSEQUENT MONITORING RESULTS

(Attach copy of laboratory results)

MAIL TO: Attention: **DMR Processing**
Bureau of Water Management, PERD
CT Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

FACILITY ID. 043-061 APPLICATION NO. 2001-08EA AUTHORIZATION NO .EA0100183

NAME OF DISCHARGER: United Technologies Corporation, Pratt & Whitney Division
SITE NAME & ADDRESS United Technologies Corporation, Pratt & Whitney Division - 400 Main Street -

East Hartford, CT 06108
DISCHARGE LOCATION: Willow Brook via Existing and Prject Specific Conveyances
(Name of waterbody or sanitary sewer)
WATER QUALITY CLASSIFICATION: B/A

Sample Date: _____
Number of hours of discharge for each day of sample collection: _____
Check one: INITIAL SCREENING OF RAW WATER _____SUBSEQUENT MONITORING _____

Reporting of the following parameters is required. Requirements for reporting a specific parameter are indicated on the Authorization form. For initial screening, report additional parameters that are known or **suspected** to be present. For subsequent monitoring, if **any** parameters exceed limits specified in this Authorization, report the results and place "FAIL" in the space provided, otherwise place "PASS" in the space provided.

POLLUTANT PARAMETER	RESULTS (w/units)	LIMITS
Maximum Daily Flow	--------	1,008,000 gpd
Total Daily Flow	_____	----------
Instantaneous Flow (at time of grab sample collection)	_____	700 gpm
Total Volatile Organics EPA Method 601 & 602 plus xylenes	_____	10 ug/l
Total PCBs (EPA Method 608)	_____	0.5 ug/l
Total Copper	_____	0.1 mg/l
Total Lead	_____	0.01 mg/l
Total Zinc	_____	0.1 mg/l
pH	_____	6.5-9.5 s.u.

ALL PARAMETERS SPECIFIED ABOVE ("PASS OR "FAIL") _____

AUTHORIZATION

INITIAL SCREENING OR SUBSEQUENT MONITORING RESULTS

(Attach copy of laboratory results)

I certify that I have personally examined and am familiar with the information submitted in this document and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statement made in this document or its attachments may be punishable as a criminal offense. I certify that all discharge limitations of this authorization have been met, otherwise if a violation of any of the discharge limits occurs, **the Bureau of Water Management must be contacted immediately,** and written notification must be submitted to the DEP within twenty-four hours.

_____ _____

Date Name:
Title:

At the time of **Final Discontinuance** of the discharge for which this Authorization was issued, please indicate:

Date of termination of discharge_____

Has an application for an individual permit or has a registration for a general permit been submitted for this discharge?

Date of submission_____

YOU MUST SUBMIT THE ABOVE INFORMATION AT THE TIME OF FINAL DISCONTINUANCE OF THE DISCHARGE, OTHERWISE YOU WILL RECEIVE A NOTICE OF VIOLATION FOR MISSING DISCHARGE MONITORING (DMR's).

cc: Town Water Pollution Control Authority (sanitary sewer discharges only)
Town Engineer (surface water discharges)

US EPA New England
RCRA Document Management System
Image Target Sheet

RDMS Document ID # 100510

Facility Name: PRATT & WHITNEY MAIN STREET

Facility ID#: CTD990672081

Phase Classification: R-9

Purpose of Target Sheet:

[X] Oversized (in Site File) [ ] Oversized (in Map Drawer)

[ ] Page(s) Missing (Please Specify Below)

[ ] Privileged [ ] Other (Provide Purpose Below)

Description of Oversized Material, if applicable:

ATTACHMENT G-1 SHEET 1: PCB DATA AND SAMPLING LOCATIONS - WILLOW BROOK

[X] Map [ ] Photograph [ ] Other (Specify Below)

* Please Contact the EPA New England RCRA Records Center to View This Document *

US EPA New England
RCRA Document Management System
Image Target Sheet

RDMS Document ID # 100510

Facility Name: PRATT & WHITNEY MAIN STREET

Facility ID#: CTD990672081

Phase Classification: R-9

Purpose of Target Sheet:

[X] **Oversized** (in Site File) [ ] **Oversized** (in Map Drawer)

[ ] **Page(s) Missing** (Please Specify Below)

[ ] **Privileged** [ ] **Other** (Provide Purpose Below)

Description of Oversized Material, if applicable:

ATTACHMENT G-2 SHEET 2: ANALYTICAL DATA AND SAMPLING LOCATIONS - WILLOW BROOK POND

[X] **Map** [ ] **Photograph** [ ] **Other** (Specify Below)

*** Please Contact the EPA New England RCRA Records Center to View This Document ***

US EPA New England
RCRA Document Management System
Image Target Sheet

RDMS Document ID # 100510

Facility Name: PRATT & WHITNEY MAIN STREET

Facility ID#: CTD990672081

Phase Classification: R-9

Purpose of Target Sheet:

[X] **Oversized** (in Site File) [ ] **Oversized** (in Map Drawer)

[ ] **Page(s) Missing** (Please Specify Below)

[ ] **Privileged** [ ] **Other** (Provide Purpose Below)

Description of Oversized Material, if applicable:

ATTACHMENT G-3 SHEET 3: ANALYTICAL DATA AND SAMPLING LOCATIONS - WILLOW BROOK

[X] **Map** [ ] **Photograph** [ ] **Other** (Specify Below)

*** Please Contact the EPA New England RCRA Records Center to View This Document ***

Attachment No. 3

Site Plan

US EPA New England
RCRA Document Management System
Image Target Sheet

RDMS Document ID # 100510

Facility Name: PRATT & WHITNEY MAIN STREET

Facility ID#: CTD990672081

Phase Classification: R-9

Purpose of Target Sheet:

[X] Oversized (in Site File) [ ] Oversized (in Map Drawer)

[ ] Page(s) Missing (Please Specify Below)

[ ] Privileged [ ] Other (Provide Purpose Below)

Description of Oversized Material, if applicable:

ATTACHMENT 3: SITE PLAN

[X] Map [ ] Photograph [ ] Other (Specify Below)

* Please Contact the EPA New England RCRA Records Center to View This Document *

CONSENT ORDER SRD-130
UNITED TECHNOLOGIES CORPORATION
PRATT & WHITNEY DIVISION
QUARTERLY PROGRESS REPORT No. 1, SEPTEMBER 2001

Attachment No. 4

Analytical Results
Discolored Material Encountered In By-Pass Channel

Table 1
SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION
Willow Brook/Willow Brook Pond

Sample Information						Analysis Information							
Location ID	Sample ID	Sample Date	From (ft)	To (ft)	Class	Portable GC	Volatile Organics	Semivolatile Organics	Herbicides	Pesticides	PCBs	Metals	Miscellaneous
WT-SB-148	1999441	7/19/01	14	16	SB						X	T	X
WT-SB-149	1999447	7/19/01	12	14	SB						X	T	X
WT-SB-159	1999428	7/19/01	4	6	SB						X	T	X

Notes: 1. Legend: x - mass, t - TCLP, s - SPLP, e - EPTOX, z - ZHE; Capitalized - at least one analyte detected

2. Printed on 09/24/01

Table 2
SUMMARY OF CONSTITUENTS DETECTED IN SOIL SAMPLES
Willow Brook/Willow Brook Pond

	Location ID	WT-SB-148	WT-SB-149	WT-SB-159				
	Sample ID	1999441	1999447	1999428				
	Sample Date	07/19/2001	07/19/2001	07/19/2001				
	Sample Time	13:40	15:00	12:52				
	Sample Depth	14' - 16'	12' - 14'	4' - 6'				
	Laboratory	PREM	PREM	PREM				
	Lab. Number	E107836-2	E107836-3	E107836-1				
Constituent	Units							
Date PCBs Analyzed	-	07/26/2001	07/26/2001	07/25/2001				
Date of Metals TCLP Analysis	-	07/27/2001	07/27/2001	07/27/2001				
Date Physical Analyzed	-	07/25/2001	07/25/2001	07/25/2001				
Barium (TCLP)	mg/l	0.76	0.83	0.84				
Cadmium (TCLP)	mg/l	0.078	0.18	0.17				
Chromium (TCLP)	mg/l	0.14	0.15	0.32				
Lead (TCLP)	mg/l	0.10	0.82	0.074				
Nickel (TCLP)	mg/l	2.8	2.3	2.3				
PCB 1254	µg/kg	4600	8900					
PCB 1260	µg/kg			1100				
Cyanide	mg/kg	0.98		0.82				
TPH	mg/kg	19000	1500	2500				

Notes: 1. Only Detects Shown

2. Printed on 09/24/01

Attachment No. 5

Analytical Results
Soil Borings in Oil/Water Separator Area

Table 1
SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION
Willow Brook/Willow Brook Pond

Sample Information						Analysis Information							
Location ID	Sample ID	Sample Date	From (ft)	To (ft)	Class	Portable GC	Volatile Organics	Semivolatile Organics	Herbicides	Pesticides	PCBs	Metals	Miscellaneous
WT-SB-151	2000453	7/24/01	8	12	SB						X	X	
WT-SB-151	2000454	7/24/01	12	14	SB						X	X	
WT-SB-151	2000455	7/24/01	14	16	SB						X	X	
WT-SB-151	2000456	7/24/01	16	18	SB							X	
WT-SB-152	2000464	7/24/01	12	14	SB						X	X	
WT-SB-152	2000465	7/24/01	14	16	SB						X	X	
WT-SB-153	2000504	7/25/01	12	14	SB						x		
WT-SB-153	2000505	7/25/01	14	16	SB						x		
WT-SB-154	2000514	7/25/01	12	14	SB						x		
WT-SB-154	2000516	7/25/01	16	18	SB						x		
WT-SB-155	2000521	7/25/01	6	8	SB						x		
WT-SB-155	2000523	7/25/01	10	12	SB						x		
WT-SB-155	2000524	7/25/01	12	14	SB						x		
WT-SB-156	2000492	7/25/01	8	10	SB						X		
WT-SB-156	2000493	7/25/01	10	12	SB						X		
WT-SB-156	2000494	7/25/01	12	14	SB						X		
WT-SB-157	2000482	7/24/01	8	10	SB						X		
WT-SB-157	2000483	7/24/01	10	12	SB						x		
WT-SB-157	2000484	7/24/01	12	14	SB						X		
WT-SB-157	2000485	7/24/01	14	16	SB						x		
WT-SB-158	2000472	7/24/01	8	10	SB						X		
WT-SB-158	2000473	7/24/01	10	12	SB						x		
WT-SB-158	2000474	7/24/01	12	14	SB						x		
WT-SB-158	2000475	7/24/01	14	16	SB		X						

Notes: 1. Legend: x - mass, t - TCLP, s - SPLP, e - EPTOX, z - ZHE; Capitalized - at least one analyte detected

2. Printed on 09/24/01

Table 2
SUMMARY OF CONSTITUENTS DETECTED IN SOIL SAMPLES
Willow Brook/Willow Brook Pond

	Location ID	WT-SB-151	WT-SB-151	WT-SB-151	WT-SB-151	WT-SB-152	WT-SB-152	WT-SB-156
	Sample ID	2000453	2000454	2000455	2000456	2000464	2000465	2000492
	Sample Date	07/24/2001	07/24/2001	07/24/2001	07/24/2001	07/24/2001	07/24/2001	07/25/2001
	Sample Time	10:05	10:20	10:25	10:35	11:20	11:25	09:50
	Sample Depth	8' - 12'	12' - 14'	14' - 16'	16' - 18'	12' - 14'	14' - 16'	8' - 10'
	Laboratory	PREM	PREM	PREM	PREM	PREM	PREM	PREM
	Lab. Number	E107838-1	E107838-2	E107838-3	E107838-4	E107838-5	E107838-6	E107922-16
Constituent	Units							
Date PCBs Analyzed	-	07/25/2001	07/25/2001	07/25/2001		07/25/2001	07/25/2001	07/27/2001
Date Metals Analyzed	-	07/26/2001	07/26/2001	07/26/2001	07/26/2001	07/26/2001	07/26/2001	
Date Organics Analyzed	-							
Arsenic	mg/kg	11	5.7	5.0	3.8	7.0	3.7	
Barium	mg/kg	140	27	16	12	53	57	
Cadmium	mg/kg	10	0.94	0.32	0.39	0.92	6.0	
Chromium	mg/kg	21	14	5.8	7.3	26	54	
Copper	mg/kg	29	22	4.2	9.5	16	20	
Lead	mg/kg	36	31	8.1	13	32	150	
Mercury	mg/kg	0.10	0.062	0.026	0.039	0.81	0.13	
Nickel	mg/kg	35	9.5	5.6	7.5	17	18	
Silver	mg/kg	4.4	0.64	0.22		1.3	1.7	
Zinc	mg/kg	390	76	32	37	37	40	
PCB 1016	µg/kg			110				
PCB 1254	µg/kg	100	150			1800		55 J
PCB 1260	µg/kg						100	
Acetone	µg/kg							
Methylene Chloride	µg/kg							

Notes: 1. Only Detects Shown
2. Printed on 09/24/01

Table 2
SUMMARY OF CONSTITUENTS DETECTED IN SOIL SAMPLES
Willow Brook/Willow Brook Pond

	Location ID	WT-SB-156	WT-SB-156	WT-SB-157	WT-SB-157	WT-SB-158	WT-SB-158	
	Sample ID	2000493	2000494	2000482	2000484	2000472	2000475	
	Sample Date	07/25/2001	07/25/2001	07/24/2001	07/24/2001	07/24/2001	07/24/2001	
	Sample Time	09:55	10:00	16:50	17:00	15:48	15:58	
	Sample Depth	10' - 12'	12' - 14'	8' - 10'	12' - 14'	8' - 10'	14' - 16'	
	Laboratory	PREM	PREM	PREM	PREM	PREM	PREM	
	Lab. Number	E107922-17	E107922-18	E107922-1	E107922-3	E107999-1	E107999-4B	
Constituent	Units							
Date PCBs Analyzed	-	07/27/2001	07/27/2001	07/27/2001	07/27/2001	07/27/2001		
Date Metals Analyzed	-							
Date Organics Analyzed	-						07/27/2001	
Arsenic	mg/kg							
Barium	mg/kg							
Cadmium	mg/kg							
Chromium	mg/kg							
Copper	mg/kg							
Lead	mg/kg							
Mercury	mg/kg							
Nickel	mg/kg							
Silver	mg/kg							
Zinc	mg/kg							
PCB 1016	µg/kg							
PCB 1254	µg/kg	1100	530	30000	1100	200		
PCB 1260	µg/kg							
Acetone	µg/kg						40	
Methylene Chloride	µg/kg						22	

Notes: 1. Only Detects Shown

2. Printed on 09/24/01

Attachment No. 6

Analytical Results
Disposal Characterization Samples

Table 1
SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION
Willow Brook/Willow Brook Pond

Sample Information						Analysis Information							
Location ID	Sample ID	Sample Date	From (ft)	To (ft)	Class	Portable GC	Volatile Organics	Semivolatile Organics	Herbicides	Pesticides	PCBs	Metals	Miscellaneous
WT-DC-02-001	2002006	8/21/01	0	0.5	SD		t		t	t	X	T	
WT-DC-04-002	2002007	8/21/01	5		SS		t		t	t	X	T	
WT-DC-04-003	2002008	8/21/01	5		SS		t		t	t	X	T	
WT-DC-07-001	2002009	8/21/01	0	0.5	SD		t		t	t	X	T	
WT-DC-09-001	2002013	8/21/01	0	0.5	SD		t		t	t	X	T	
WT-DC-09-002	2002014	8/21/01	0	0.5	SD		t		t	t	X	T	
WT-DC-09-003	2002015	8/21/01	0	0.5	SD		t		t	t	X	T	
WT-DC-09-004	2002016	8/21/01	0	0.5	SD		t		t	t	X	T	
WT-DC-09-005	2002017	8/21/01	0	0.5	SD		T		t	t	X	T	
WT-DC-09-006	2002018	8/21/01	0	0.5	SD		t		t	t	X	T	
WT-DC-09-007	2002019	8/21/01	0	0.5	SD		t		t	t	X	T	
WT-DC-10-001	2002012	8/21/01	0	0.5	SD		t		t	t	X	T	
WT-DC-14-001	2002010	8/21/01	0	0.5	SD		T		t	t	X	T	
WT-DC-14-002	2002011	8/21/01	0	0.5	SD		T		t	t	X	T	
WT-DC-15-001	2002020	8/21/01	0	0.5	SD		t		t	t	X	T	
WT-DC-15-002	2002021	8/21/01	0	0.5	SD		t		t	t	X	T	
WT-DC-15-003	2002022	8/21/01	0	0.5	SD		t		t	t	X	T	
WT-DC-15-004	2002023	8/21/01	0	0.5	SD		t		t	t	X	T	

Notes: 1. Legend: x - mass, t - TCLP, s - SPLP, e - EPTOX, z - ZHE; Capitalized - at least one analyte detected

2. Printed on 09/24/01

Table 2
SUMMARY OF CONSTITUENTS DETECTED IN SOIL SAMPLES
Willow Brook/Willow Brook Pond

	Location ID	WT-DC-02-001	WT-DC-04-002	WT-DC-04-003	WT-DC-07-001	WT-DC-09-001	WT-DC-09-002	WT-DC-09-003
	Sample ID	2002006	2002007	2002008	2002009	2002013	2002014	2002015
	Sample Date	08/21/2001	08/21/2001	08/21/2001	08/21/2001	08/21/2001	08/21/2001	08/21/2001
	Sample Time	10:15	10:30	10:40	10:50	11:40	11:50	12:00
	Sample Depth	0' - 0.5'	5'	5'	0' - 0.5'	0' - 0.5'	0' - 0.5'	0' - 0.5'
	Laboratory	PREM	PREM	PREM	PREM	PREM	PREM	PREM
	Lab. Number	E108867-1	E108867-2	E108867-3	E108867-4	E108867-8	E108867-9	E108867-10
Constituent	Units							
Date PCBs Analyzed	-	08/21/2001	08/21/2001	08/21/2001	08/21/2001	08/21/2001	08/21/2001	08/21/2001
Date of Metals TCLP Analysis	-	08/24/2001	08/24/2001	08/24/2001	08/24/2001	08/24/2001	08/24/2001	08/24/2001
Date of Zero Headspace TCLP Analysis	-							
Barium (TCLP)	mg/l	0.66	0.68	0.81	0.94	0.97	0.86	0.94
Cadmium (TCLP)	mg/l	0.022	0.078	0.22	0.076	0.030	0.018	0.027
Chromium (TCLP)	mg/l		0.047	0.065		0.024		
Copper (TCLP)	mg/l	0.34	0.073	0.18	3.4			0.090
Lead (TCLP)	mg/l	0.49		0.077	0.28	0.15	0.21	0.15
Nickel (TCLP)	mg/l	0.32	0.86	3.1	1.2	0.50	0.47	0.52
Zinc (TCLP)	mg/l	1.2	1.1	1.8	4.5	1.4	4.0	5.6
PCB 1254	µg/kg	8700	11000	37000	7200	100000	8700	12000
2-Butanone (TCLP)	µg/l							
Vinyl Chloride (TCLP)	µg/l							
Tetrachloroethylene (TCLP)	µg/l							
Trichloroethylene (TCLP)	µg/l							
Chloroform (TCLP)	µg/l							

Notes: 1. Only Detects Shown
2. Printed on 09/24/01

Table 2
SUMMARY OF CONSTITUENTS DETECTED IN SOIL SAMPLES
Willow Brook/Willow Brook Pond

	Location ID	WT-DC-09-004	WT-DC-09-005	WT-DC-09-006	WT-DC-09-007	WT-DC-10-001	WT-DC-14-001	WT-DC-14-002
	Sample ID	2002016	2002017	2002018	2002019	2002012	2002010	2002011
	Sample Date	08/21/2001	08/21/2001	08/21/2001	08/21/2001	08/21/2001	08/21/2001	08/21/2001
	Sample Time	12:05	12:10	12:15	12:17	11:20	11:10	11:20
	Sample Depth	0' - 0.5'	0' - 0.5'	0' - 0.5'	0' - 0.5'	0' - 0.5'	0' - 0.5'	0' - 0.5'
	Laboratory	PREM	PREM	PREM	PREM	PREM	PREM	PREM
	Lab. Number	E108867-11	E108867-12	E108867-13	E108867-14	E108867-7	E108867-5	E108867-6
Constituent	Units							
Date PCBs Analyzed	-	08/21/2001	08/21/2001	08/21/2001	08/21/2001	08/21/2001	08/21/2001	08/21/2001
Date of Metals TCLP Analysis	-	08/24/2001	08/24/2001	08/24/2001	08/24/2001	08/24/2001	08/24/2001	08/24/2001
Date of Zero Headspace TCLP Analysis	-		08/24/2001				08/23/2001	08/23/2001
Barium (TCLP)	mg/l	0.78	0.63	0.92	0.62	1.2	0.80	0.47
Cadmium (TCLP)	mg/l	0.047					0.12	0.026
Chromium (TCLP)	mg/l				0.034		0.025	
Copper (TCLP)	mg/l						0.53	0.15
Lead (TCLP)	mg/l	0.073		0.092		0.063	0.098	0.044 YJ
Nickel (TCLP)	mg/l	1.1	1.5	1.9	0.68	0.38	2.2	0.22
Zinc (TCLP)	mg/l	4.6	1.9	3.8	1.0	3.1	2.1	1.2
PCB 1254	µg/kg	27000	54000	44000	47000	11000	46000	3100
2-Butanone (TCLP)	µg/l		41					
Vinyl Chloride (TCLP)	µg/l						5.9	
Tetrachloroethylene (TCLP)	µg/l						7.1	11
Trichloroethylene (TCLP)	µg/l						64	41
Chloroform (TCLP)	µg/l						27	

Notes: 1. Only Detects Shown

2. Printed on 09/24/01

Table 2
SUMMARY OF CONSTITUENTS DETECTED IN SOIL SAMPLES
Willow Brook/Willow Brook Pond

	Location ID	WT-DC-15-001	WT-DC-15-002	WT-DC-15-003	WT-DC-15-004			
	Sample ID	2002020	2002021	2002022	2002023			
	Sample Date	08/21/2001	08/21/2001	08/21/2001	08/21/2001			
	Sample Time	13:20	13:24	13:33	13:40			
	Sample Depth	0' - 0.5'	0' - 0.5'	0' - 0.5'	0' - 0.5'			
	Laboratory	PREM	PREM	PREM	PREM			
	Lab. Number	E108867-15	E108867-16	E108867-17	E108867-18			
Constituent	Units							
Date PCBs Analyzed	-	08/21/2001	08/21/2001	08/21/2001	08/21/2001			
Date of Metals TCLP Analysis	-	08/24/2001	08/24/2001	08/24/2001	08/24/2001			
Date of Zero Headspace TCLP Analysis	-							
Barium (TCLP)	mg/l	0.76	0.91	1.1	0.91			
Cadmium (TCLP)	mg/l	0.037	0.025	0.026				
Chromium (TCLP)	mg/l							
Copper (TCLP)	mg/l	0.14	0.24	0.19				
Lead (TCLP)	mg/l	0.12			0.41			
Nickel (TCLP)	mg/l	0.23	0.20	0.31	0.20			
Zinc (TCLP)	mg/l	2.4	1.3	1.7	1.7			
PCB 1254	µg/kg	67000	3600	4000	990			
2-Butanone (TCLP)	µg/l							
Vinyl Chloride (TCLP)	µg/l							
Tetrachloroethylene (TCLP)	µg/l							
Trichloroethylene (TCLP)	µg/l							
Chloroform (TCLP)	µg/l							

Notes: 1. Only Detects Shown

2. Printed on 09/24/01

Attachment No. 7

Analytical Results
Soil Borings Advanced in Upper Willow Brook Pond

Table 1
SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION
Willow Brook/Willow Brook Pond

Sample Information						Analysis Information							
Location ID	Sample ID	Sample Date	From (ft)	To (ft)	Class	Portable GC	Volatile Organics	Semivolatile Organics	Herbicides	Pesticides	PCBs	Metals	Miscellaneous
WT-SB-162	2002966	9/ 4/01	0	2	SB						X		
WT-SB-162	2002967	9/ 4/01	2	4	SB						X		
WT-SB-162	2002968	9/ 4/01	4	6	SB						X		
WT-SB-162	2002969	9/ 4/01	6	8	SB						X		
WT-SB-163	2002971	9/ 4/01	0	2	SB						X		
WT-SB-163	2002972	9/ 4/01	2	4	SB						X		
WT-SB-163	2002973	9/ 4/01	4	6	SB						x		
WT-SB-164	2002977	9/ 5/01	4	6	SB						X		
WT-SB-165	2002979	9/ 5/01	0	2	SB						X		
WT-SB-165	2002980	9/ 5/01	2	4	SB						X		
WT-SB-165	2002981	9/ 5/01	4	6	SB						X		
WT-SB-165	2002983	9/ 5/01	6	8	SB						X		
WT-SB-166	2002987	9/ 5/01	4	6	SB						X		
WT-SB-167	2002991	9/ 5/01	4	6	SB						X		
WT-SB-168	2002993	9/ 5/01	0	2	SB						X		
WT-SB-168	2002994	9/ 5/01	2	4	SB						X		
WT-SB-168	2002995	9/ 5/01	4	6	SB						X		
WT-SB-168	2002956	9/ 5/01	6	8	SB						X		
WT-SB-168	2002957	9/ 5/01	8	10	SB						x		
WT-SB-169	2002958	9/ 5/01	0	2	SB						X		
WT-SB-169	2002959	9/ 5/01	2	4	SB						X		
WT-SB-169	2002960	9/ 5/01	4	6	SB						X		

Notes: 1. Legend: x - mass, t - TCLP, s - SPLP, e - EPTOX, z - ZHE; Capitalized - at least one analyte detected

2. Printed on 09/24/01

Table 2
SUMMARY OF CONSTITUENTS DETECTED IN SOIL SAMPLES
Willow Brook/Willow Brook Pond

	Location ID	WT-SB-162	WT-SB-162	WT-SB-162	WT-SB-162	WT-SB-163	WT-SB-163	WT-SB-164
	Sample ID	2002966	2002967	2002968	2002969	2002971	2002972	2002977
	Sample Date	09/04/2001	09/04/2001	09/04/2001	09/04/2001	09/04/2001	09/04/2001	09/05/2001
	Sample Time	10:25	10:45	10:55	11:05	11:45	11:55	08:10
	Sample Depth	0' - 2'	2' - 4'	4' - 6'	6' - 8'	0' - 2'	2' - 4'	4' - 6'
	Laboratory	PREM	PREM	PREM	PREM	PREM	PREM	PREM
	Lab. Number	E109110-1	E109110-2	E109110-3	E109110-4	E109110-5	E109110-6	E109111-1
Constituent	Units							
Date PCBs Analyzed	-	09/06/2001	09/05/2001	09/05/2001	09/06/2001	09/06/2001	09/05/2001	09/05/2001
PCB 1254	µg/kg	18000	100000		16000	57000	4800	
PCB 1260	µg/kg			120				65

Notes: 1. Only Detects Shown
2. Printed on 09/24/01

Table 2
SUMMARY OF CONSTITUENTS DETECTED IN SOIL SAMPLES
Willow Brook/Willow Brook Pond

	Location ID	WT-SB-165	WT-SB-165	WT-SB-165	WT-SB-165	WT-SB-166	WT-SB-167	WT-SB-168
	Sample ID	2002979	2002980	2002981	2002983	2002987	2002991	2002993
	Sample Date	09/05/2001	09/05/2001	09/05/2001	09/05/2001	09/05/2001	09/05/2001	09/05/2001
	Sample Time	08:20	08:25	08:40	08:45	09:40	10:00	10:40
	Sample Depth	0' - 2'	2' - 4'	4' - 6'	6' - 8'	4' - 6'	4' - 6'	0' - 2'
	Laboratory	PREM	PREM	PREM	PREM	PREM	PREM	PREM
	Lab. Number	E109111-2	E109111-3	E109111-4	E109111-5	E109111-6	E109111-7	E109111-8
Constituent	Units							
Date PCBs Analyzed	-	09/05/2001	09/05/2001	09/05/2001	09/06/2001	09/06/2001	09/05/2001	09/06/2001
PCB 1254	µg/kg	16000	99000	58000	26000	24000	140	43000
PCB 1260	µg/kg							

Notes: 1. Only Detects Shown
2. Printed on 09/24/01

Table 2
SUMMARY OF CONSTITUENTS DETECTED IN SOIL SAMPLES
Willow Brook/Willow Brook Pond

	Location ID	WT-SB-168	WT-SB-168	WT-SB-168	WT-SB-169	WT-SB-169	WT-SB-169	
	Sample ID	2002994	2002995	2002956	2002958	2002959	2002960	
	Sample Date	09/05/2001	09/05/2001	09/05/2001	09/05/2001	09/05/2001	09/05/2001	
	Sample Time	10:50	10:55	11:00	11:45	11:50	11:55	
	Sample Depth	2' - 4'	4' - 6'	6' - 8'	0' - 2'	2' - 4'	4' - 6'	
	Laboratory	PREM	PREM	PREM	PREM	PREM	PREM	
	Lab. Number	E109111-9	E109111-10	E109111-11	E109111-13	E109111-14	E109111-15	
Constituent	Units							
Date PCBs Analyzed	-	09/06/2001	09/06/2001	09/06/2001	09/06/2001	09/06/2001	09/06/2001	
PCB 1254	µg/kg	55000	59000	84000	9100	59000		
PCB 1260	µg/kg						210	

Notes: 1. Only Detects Shown
2. Printed on 09/24/01

CONSENT ORDER SRD-130
UNITED TECHNOLOGIES CORPORATION
PRATT & WHITNEY DIVISION
QUARTERLY PROGRESS REPORT No. 1, SEPTEMBER 2001

Attachment No. 8

Analytical Results
Raw Groundwater Samples

Table 1
SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION
Willow Brook/Willow Brook Pond

DRAFT

Sample Information					Analysis Information							
Location ID	Sample ID	Sample Date	From (ft) To (ft)	Class	Portable GC	Volatile Organics	Semivolatile Organics	Herbicides	Pesticides	PCBs	Metals	Miscellaneous
WT-EW-02-001	2003003	9/11/01		WWP						x	X	X
WT-EW-02-001	2003004	9/11/01		WWP						x	X	X
WT-EW-02-001	2003005	9/11/01		WWP						x	X	X
WT-EW-02-001	2003006	9/11/01		WWP						x	X	X

Notes: 1. Legend: x - mass, t - TCLP, s - SPLP, e - EPTOX, z - ZHE; Capitalized - at least one analyte detected

2. Printed on 09/24/01

Table 2

DRAFT

SUMMARY OF CONSTITUENTS DETECTED IN GROUNDWATER

Willow Brook/Willow Brook Pond

	Location ID	WT-EW-02-001	WT-EW-02-001	WT-EW-02-001	WT-EW-02-001			
	Sample ID	2003003	2003004	2003005	2003006			
	Sample Date	09/11/2001	09/11/2001	09/11/2001	09/11/2001			
	Sample Time	12:45	14:45	16:45	18:45			
	Laboratory	PREM	PREM	PREM	PREM			
	Lab. Number	E109446-2A	E109446-3A	E109446-4A	E109446-5A			
Constituent	Units							
Date Metals Analyzed	-	09/12/2001	09/12/2001	09/12/2001	09/12/2001			
Date Physical Analyzed	-	09/13/2001	09/13/2001	09/13/2001	09/13/2001			
Zinc	mg/l	1.1	0.96	0.95	0.94			
Residue, non-filterable	mg/l			2.0				
Total Dissolved Solids	mg/l	170	180	190	170			

Notes: 1. Only Detects Shown

2. Printed on 09/24/01

CONSENT ORDER SRD-130
UNITED TECHNOLOGIES CORPORATION
PRATT & WHITNEY DIVISION
QUARTERLY PROGRESS REPORT No. 1, SEPTEMBER 2001

Attachment No. 9

Analytical Results
Sediment Samples
From
Drains Discharging to Willow Brook Pond

Table 1
SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION
Willow Brook/Willow Brook Pond

Sample Information						Analysis Information							
Location ID	Sample ID	Sample Date	From (ft)	To (ft)	Class	Portable GC	Volatile Organics	Semivolatile Organics	Herbicides	Pesticides	PCBs	Metals	Miscellaneous
WT-SD-128	2002946	9/ 6/01	0	0.6	SD						X		
WT-SD-128	2002947	9/ 6/01	0.6	1.2	SD						X		
WT-SD-129	2002948	9/ 6/01	0	1	SD						X		
WT-SD-130	2002949	9/10/01	0	0.2	SD						X		
WT-SD-131	2002950	9/10/01	0	0.3	SD						X		
WT-SD-132	2002951	9/10/01	0	2	SD						X		
WT-SD-133	2002952	9/10/01	0	2	SD						X		

Notes: 1. Legend: x - mass, t - TCLP, s - SPLP, e - EPTOX, z - ZHE; Capitalized - at least one analyte detected

2. Printed on 09/24/01

Table 2
SUMMARY OF CONSTITUENTS DETECTED IN SEDIMENT SAMPLES
Willow Brook/Willow Brook Pond

	Location ID	WT-SD-128	WT-SD-128	WT-SD-129	WT-SD-130	WT-SD-131	WT-SD-132	WT-SD-133
	Sample ID	2002946	2002947	2002948	2002949	2002950	2002951	2002952
	Sample Date	09/06/2001	09/06/2001	09/06/2001	09/10/2001	09/10/2001	09/10/2001	09/10/2001
	Sample Time	12:40	12:48	13:15	15:32	16:00	16:20	16:50
	Sample Depth	0' - 0.6'	0.6' - 1.2'	0' - 1'	0' - 0.2'	0' - 0.3'	0' - 2'	0' - 2'
	Laboratory	PREM	PREM	PREM	PREM	PREM	PREM	PREM
	Lab. Number	E109328-1	E109328-2	E109328-3	E109360-1	E109360-2	E109360-3	E109360-4
Constituent	Units							
Date PCBs Analyzed	-	09/10/2001	09/10/2001	09/10/2001	09/11/2001	09/11/2001	09/11/2001	09/12/2001
PCB 1254	µg/kg	440	680	610	220	640	420	750

Notes: 1. Only Detects Shown

2. Printed on 09/24/01

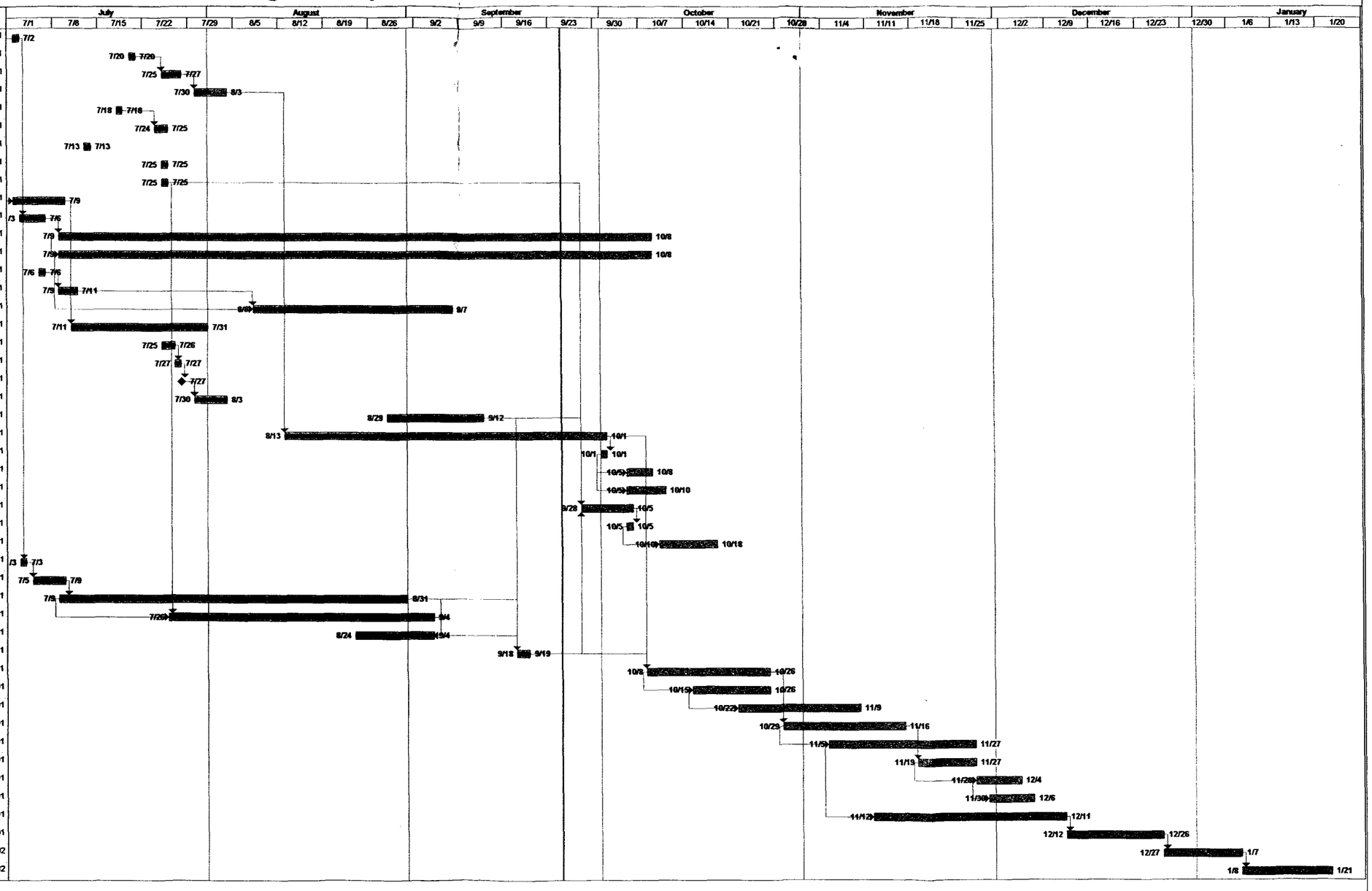
CONSENT ORDER SRD-130
UNITED TECHNOLOGIES CORPORATION
PRATT & WHITNEY DIVISION
QUARTERLY PROGRESS REPORT No. 1, SEPTEMBER 2001

Attachment No. 10

Schedule

Willow Brook/Willow Brook Pond
PCB Remediation Project
Progress Report - Construction Schedule

ID	Task Name	Duration	Start	Finish
1	Project Initiation	1d	Mon 7/2/01	Mon 7/2/01
7	Disconnect Power at Sub 54 and Obtain P&W Clearance to Work	1d	Fri 7/20/01	Fri 7/20/01
3	Perform Geoprobe Investigation Around O/W Separator	3d	Wed 7/25/01	Fri 7/27/01
4	Receive Analytical Data for Investigations	5d	Mon 7/30/01	Fri 8/3/01
5	401 Water Quality Certification End of Notice	1d	Wed 7/18/01	Wed 7/18/01
6	Receive 401 Water Quality Certification	2d	Tue 7/24/01	Wed 7/25/01
7	Sign ACOE Permit and Work Start Form	1d	Fri 7/13/01	Fri 7/13/01
8	Submit ACOE Permit and Work Start Form	1d	Wed 7/25/01	Wed 7/25/01
9	Receive Authorization from ACOE	1d	Wed 7/25/01	Wed 7/25/01
10	Mobilization / Demobilization	5d	Mon 7/2/01	Mon 7/9/01
11	Temp. Construction Fence	3d	Tue 7/3/01	Fri 7/6/01
12	Install Erosion Control Measures	65d	Mon 7/9/01	Mon 10/8/01
13	Clearing & Grubbing	65d	Mon 7/9/01	Mon 10/8/01
14	Submit DOT Permit	1d	Fri 7/6/01	Fri 7/6/01
15	Obtain DOT Permit	3d	Mon 7/9/01	Wed 7/11/01
16	Install Permanent Fencing - North of Site	22d	Wed 8/8/01	Fri 9/7/01
17	Construct Decontamination Facilities	15d	Wed 7/11/01	Tue 7/31/01
18	Perform Asbestos Abatement	2d	Wed 7/25/01	Thu 7/26/01
19	Submit Demolition Permit to East Hartford	1d	Fri 7/27/01	Fri 7/27/01
20	Obtain Demolition Permit	0d	Fri 7/27/01	Fri 7/27/01
21	Demolish Majority of Substation and Process Water Facility	5d	Mon 7/30/01	Fri 8/3/01
22	Extend By-Pass Channel and Clean 108-inch Conduit	10d	Wed 8/29/01	Wed 9/12/01
23	Perform Excavation of Oil/Water Separator	35d	Mon 8/13/01	Mon 10/1/01
24	Confirmatory Sampling	1d	Mon 10/1/01	Mon 10/1/01
25	Install New 108-inch Corrugated Metal Pipe between Ponds	2d	Fri 10/5/01	Mon 10/8/01
26	Backfill and Cap Oil/Water Separator	4d	Fri 10/5/01	Wed 10/10/01
27	Perform Excavation in Upper Pond	6d	Fri 9/28/01	Fri 10/5/01
28	Confirmatory Sampling	1d	Fri 10/5/01	Fri 10/5/01
29	Install Upper Pond Cap and Restore Banks	7d	Wed 10/10/01	Thu 10/18/01
30	Mill Pavement for By-Pass Channel	1d	Tue 7/3/01	Tue 7/3/01
31	Clear Millings	3d	Thu 7/5/01	Mon 7/9/01
32	Excavate for By-Pass Channel and Install Connections	40d	Mon 7/9/01	Fri 8/31/01
33	Install Sheeting for By-Pass Channel	28d	Thu 7/26/01	Tue 9/4/01
34	Line By-Pass Channel	7d	Fri 8/24/01	Tue 9/4/01
35	Initiate By-Pass of Willow Brook	2d	Tue 9/18/01	Wed 9/19/01
36	Excavate Soil In Lower Pond	15d	Mon 10/8/01	Fri 10/26/01
37	Confirmatory Sampling	10d	Mon 10/15/01	Fri 10/26/01
38	Install Lower Pond Cap and Restore Banks	15d	Mon 10/22/01	Fri 11/9/01
39	Excavate Soil In Wetlands and Stream Channel	15d	Mon 10/29/01	Fri 11/16/01
40	Confirmatory Sampling	15d	Mon 11/5/01	Tue 11/27/01
41	Regrade Channel Slopes	5d	Mon 11/19/01	Tue 11/27/01
42	Top Soil Channel Slopes	5d	Wed 11/28/01	Tue 12/4/01
43	Slope Stabilization Fabric and Seeding	5d	Fri 11/30/01	Thu 12/6/01
44	Restore Wetlands and Stream Channel	20d	Mon 11/12/01	Tue 12/11/01
45	Backfill By-Pass Channel, Complete Demolition, and Restore	10d	Wed 12/12/01	Wed 12/26/01
46	Install Permanent Fence, 3 Vehicle Gates and 5 Access Gates	7d	Thu 12/27/01	Mon 1/7/02
47	Demobilization for Winter	10d	Tue 1/8/02	Mon 1/21/02



Project: Willow Pond
Date: Tue 9/25/01

Task | Critical Task | Progress | Milestone | Summary | Rolled Up Task | Rolled Up Critical Task | Rolled Up Milestone | Rolled Up Progress